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ABSTRACT

This report contains the strategic vision for the Department of Labor (DOL)/Employment and Training Administration's research efforts for the next five years. Section I discusses the scope of the research plan and the development process. Section II is a review of literature concerning functioning of the labor market and identification of areas needing additional research. Section III reviews recent policy changes that will affect employment and training interventions. It identifies potential research topics that would most help DOL implement the Workforce Investment Act 1998 (WIA). Section IV provides a review of recent research, evaluation, pilot, and demonstration initiatives to help implement and improve programs under WIA. It focuses on understanding effectiveness of employment and training interventions designed to aid employers, adult job seekers, youth, and disabled and other special populations. Section V examines alternative methodologies for employment and training research and their strengths and weaknesses. Section VI identifies these nine high priority research topics: understand intermediaries' role in the labor market; identify effective training strategies; develop appropriate assessment tools; evaluate and

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improve job retention programs and services; develop strategies to promote career advancement; identify effective support services; understand impact of self- directed employment services; improve interventions to assist the hardest-to-serve; and develop the potential of telecommuting. There is a 246-item bibliography. (YLB)

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The Five-Year Strategic Plan for Pilots, Demonstration Research and Evaluations, July 2000 - June 2005

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PREFACE

Under the Workforce Investment Act of 1998, a five-year strategic plan (referred throughout this text as the "Research Plan") for the U.S. Department of Labor, Employment and Training Administration (USDOL/ETA) is to be prepared every two years. This plan provides a strategic vision for research efforts based upon extensive input from stakeholders, a review of recent research efforts, an identification of areas where future research may be needed, and a review of possible research methodologies. This is the first five-year Research Plan for the USDOL/ETA, which was transmitted to the Congress, and covers the period of July 2000 through June 2005.

ACKNOWLEDGEMENTS

This Research Plan was written and developed under the direction and guidance of Stephen Wandner, Director of the Division of Research and Demonstrations in the Office of Policy and Research. Janet Javar, of the Division of Research and Demonstrations, was the Project Officer for this effort. She reviewed and edited the Research Plan, and managed its development and completion. Jon Messenger, of the Division of Research and Demonstrations, also provided guidance and assistance in the development of the Research Plan. Valuable input was provided by numerous ETA staff, as well as Harry Holzer, the U.S. Department of Education, and the U.S. Department of Health and Human Services.

This publication, as well as other research and evaluation reports, can be ordered online through the Office of Policy and Research (OPR) website at *www.ttrc.doleta.gov/opr/Pub818.htm*, through the OPR publications' phone line at 202-693-3666 (please note that this is not a toll-free number), or requested by mail at: The Office of Policy and Research/The Division of Policy, Legislation, and Dissemination, U.S. Department of Labor, 200 Constitution Avenue, N.W., N-5637, Washington, D.C. 20210. The Research Plan can also be downloaded directly from the OPR website at *http://wdr.doleta.gov/opr/reports.asp* or from the Heldrich Center website at *www.heldrich.rutgers.edu/reports.html*.

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The USDOL/ETA would like to thank the numerous individuals, State and local practitioners, Federal research and program offices, and organizations who contributed to the development of the Research Plan.* Special appreciation is given to Beth Buehlmann, Evelyn Ganzglass, Gary Gortenburg, Virginia Hamilton, Rich Hobbie, Lisa Lynch, Larry Mishel, William Rodgers, Jim Van Erden, John Wallace, and Stephen Woodbury for their guidance and input as members of the Expert Panel in the development of the list of high priority research topics and the Research Plan.

This five-year Research Plan for July 2000 – June 2005 was prepared pursuant to a contract with the John J. Heldrich Center for Workforce Development at Rutgers University to support the USDOL/ETA in the development of the plan. Principal authors of this Research Plan are: Carl Van Horn, Professor of Public Policy and Director at the Heldrich Center; Aaron Fichtner, Senior Project Manager at the Heldrich Center; Jennifer Altman, Project Director at the Heldrich Center; and Julie Whittaker, Assistant Professor of Public Policy and Economist at the Heldrich Center. Christopher Jones, a consultant to the Heldrich Center, is the principal author of the section on *Understanding the Labor Market.* Research Assistant Rachelle Brooks, Graduate Assistants Bernadette DeVito and Leela Hebbar, and Research Assistants David Antonio, Jeremy Colangelo-Bryan, Janet Fairman, Karen Peters, and Elissa Shore also contributed to the development of the Research Plan.

Appendix C is a list of individuals who participated in the process for developing the Research Plan

TABLE OF CONTENTS

EXECUTIVE SUMMARY

SECTION I. INTRODUCTION **2**

A. Scope of the Research Plan 3
B. Process for the Development of the Research Plan 4

SECTION II. UNDERSTANDING THE FUNCTIONING OF THE LABOR MARKET **11**

A. Skill Requirements in the Knowledge-Based Economy 12
B. Changes in the Composition of the Labor Force and in the Acquisition of Skills 16
C. Changes in the Structure and Organization of Work 26
D. Wages and Compensation Trends 34
E. Conclusions and Implications of Labor Market Trends for Employment and Training Interventions 39

SECTION III. CHANGING POLICIES FOR EMPLOYMENT AND TRAINING INTERVENTIONS: THE WORKFORCE INVESTMENT ACT OF 1998 **46**

A. Workforce Investment Boards 46
B. Coordination of Services through One-Stop Career Centers 46
C. Delivery of Core, Intensive and Training Services through WIA (for Adults and Dislocated Workers) 47
D. Services for Youth 47
E. New Measures and Methods for Performance Measurement 48
F. Other Significant Policy Changes, including Welfare to Work 49

SECTION IV. REVIEW OF RECENT PILOT, DEMONSTRATION, RESEARCH, AND EVALUATION INITIATIVES TO ASSIST IN THE IMPLEMENTATION AND IMPROVEMENT OF PROGRAMS UNDER THE WORKFORCE INVESTMENT ACT **53**

A. Programs, Pilots, and Demonstrations Designed to Assist Employers **53**
1. Assisting Employers to Upgrade the Skills of Employees 53
2. Financial Incentives to Encourage the Hiring of Targeted Populations 56
3. Assessing Skill Needs and Setting Skill Standards 58

B. Programs, Pilots and Demonstrations Designed To Assist Adult Job Seekers/Workers **60**

1. Helping Individuals Locate or Create Employment Opportunities 60
   a. Interventions Designed To Help Individuals Move from Welfare to Work 62
   b. Reemployment Services and Job Search Assistance for Unemployed Individuals 76
   b. Self-Employment Assistance/ Micro-Enterprise Development 81
   d. Place-Based Strategies Designed to Assist Residents in Particular Communities 83
2. Assisting Individuals Upgrade Skills to Obtain Employment or Remain Employed 85
   a. Workplace Skills Training for Disadvantaged Individuals 86
   b. Retraining Programs for Dislocated Workers 89
   c. Sectoral Strategies 91
3. Providing Temporary Income Support to Unemployed Individual 93
4. Support Services Needed To Maintain Employment 99

C. Programs, Pilots, And Demonstrations Designed to Assist Youth **104**

1. Assisting In-School Youth 106
2. Assisting Out-Of-School Youth 113

D. Programs, Pilots, And Demonstrations Designed to Assist Disabled Individuals and Other Special Populations **122**

1. Assisting Disabled Individuals to Become Employed 122
2. Assisting Native Americans 126
3. Assisting the Homeless 128
4. Assisting Migrant and Seasonal Farmworkers 128
5. Assisting Older Workers 129
6. Assisting Ex-Offenders 130
7. Assisting Non-Native English Speakers 132
8. Assisting Veterans 132

SECTION V. REVIEW OF ALTERNATIVE METHODOLOGIES FOR EMPLOYMENT AND TRAINING RESEARCH **136**

A. Examination of Alternative Methods for Understanding the Labor Market **137**

1. Introduction and Overview 137
2. Review of Usefulness of Existing Datasets Related to the Labor Market 138
3. Suggested Areas Where Additional or Enhanced Datasets Are Needed 145

B. The Strengths and Weaknesses of Alternative Methods for Studying Employment and Training Interventions **147**

1. Defining Outcome Measurement 151
2. Experimental Methodologies Useful for the Evaluation of Programs, Pilots, and Demonstration Projects 152
3. Nonexperimental Methodologies Useful for the Evaluation of Programs, Pilots, and Demonstration Projects 159
4. Implementation of Quick-Turnaround Studies, Best Practices Assessments, and Program Implementation Process Analysis 164

C. Ensuring the Policy Relevance of Research and Evaluation Projects **165**

1. Validity and Ability to Generalize Results Across Labor Markets and States 165
2. Effective Dissemination of Results 166

SECTION VI. HIGH PRIORITY RESEARCH TOPICS / SUBJECT AREAS **172**

1. Understanding the role of intermediaries in the labor market; 172
2. Identifying effective training strategies; 173
3. Developing appropriate assessment tools; 174
4. Evaluating and improving job retention programs and services; 175
5. Developing strategies to promote career advancement; 175
6. Identifying effective support services; 176
7. Understanding the impact of self-directed employment services; 177
8. Improving interventions to assist the hardest-to-serve, including welfare recipients and the homeless; 177
9. Developing the potential of telecommuting. 178
10. General recommendations 179

APPENDIXES

APPENDIX A. Members of the Expert Panel

APPENDIX B. Bibliography

APPENDIX C. Contributors to Potential Research Topics/ Subject Areas

TABLES AND FIGURES

Figure 1.1:	Education and Training Requirements of All jobs, 1996 & 2006	13
Figure 1.2:	Race and Ethnicity of the Labor Force 1986-2006	21
Figure 1.3:	Workers in Alternative Employment Arrangements as a Share of the Workforce, 1997	30
Figure 2.1:	Experimental Design	156
Table 1.1:	Part-time Workers as a Share of the Nonagricultural Workforce	28
Table 1.2:	Annual Change in Average Hourly and Annual Earnings, 1967-1996	35
Table 1.3:	Annual Changes in Hourly Wages, Benefits and Total Compensation, 1959-1996	36
Table 2.1:	Employment, Wage, Education and Industry Data Sources: Individual and Household Cross-Sectional Data	139
Table 2.2:	Employment, Wage, Education and Industry Data Sources: Individual and Household Longitudinal Data	141
Table 2.3:	Employment, Wage, Education and Industry Data Sources: Establishment, Firm, and Industry Data	142
Table 2.4:	Additional and Enhanced Data Needs	144
Table 2.5:	What Research Goals Imply about Evaluation Types, By Topic Area	148
Table 2.6:	Comparing Research Designs for Outcome Assessment of Employment and Training Interventions and Programs	150
Table 2.7:	Typology for Determining Appropriate Research Design	152
Table 2.8:	Measuring Differences in Outcomes	156

EXECUTIVE SUMMARY

This report contains the strategic vision for the U.S. Department of Labor (DOL) / Employment and Training Administration's (ETA) research efforts over the next five years.[1] This report—referred to as the Research Plan throughout the text—identifies the potential pilot, demonstration, research, and evaluation projects, including multistate and multiservice projects, that will help guide the DOL in expanding skills and opportunities for U.S. employers and workers as it implements the Workforce Investment Act of 1998 and related ETA programs.[2]

A number of national commentators and observers have noted the importance of the Workforce Investment Act (WIA) of 1998, the nation's most comprehensive effort at streamlining and transforming public job training and education programs and agencies into a system that meets the skill needs of today's economy. WIA replaces the Job Training Partnership Act (JTPA) and amends the Wagner-Peyser Act, and must be implemented by states no later than July 1, 2000. WIA seeks to create a new, comprehensive workforce investment system designed to meet the needs of both employers and job seekers.

WIA contains a number of significant changes, including a substantial devolution of control to the state and local governments, new governance structures including state and local Workforce Investment Boards, universal access and streamlined services through One-Stop Centers, and customer choice through Individual Training Accounts. WIA also emphasizes increased accountability and continuous improvement of the workforce investment system through performance management requirements.

WIA requires that the Secretary of Labor prepare a five-year plan for research, pilot, and demonstration initiatives every two years for the ETA. This first Research Plan covers the period from 2000 to 2005. The Research Plan provides DOL with an opportunity to develop a strategic vision for research efforts based upon extensive comment from analysts and practitioners around the U.S., a review of recent research efforts,

[1] ETA conducts pilots, demonstrations, research, and evaluations with the "research" objective(s) of: testing new approaches; describing the most successful and best practices to improve existing programs and create new programs; and filling in the gaps in knowledge on employment and training issues. As a result, throughout the text of this Research Plan, the term "research" is widely used to refer to all pilots, demonstrations, research, and evaluations, including those with multistate and multiservice characteristics.

[2] Through ETA's annual research procurement planning process, which is the Workforce Development Investment Plan (WDIP), projects with multistate and/or multiservice characteristics are conducted and funded as either a pilot, demonstration, research, or evaluation project. As a result, "multiservice projects" and "multistate projects" are not specifically mentioned but are implied throughout this plan as being carried out as either a pilot, demonstration, research, or evaluation project through the WDIP.

an identification of areas where future research may be needed, and a review of research methodologies.[3]

Based on this analysis and input from an Expert Panel, this Research Plan identifies nine high priority topic areas to guide DOL over the next five years. These include:

1. Understanding the role of intermediaries in the labor market;
2. Identifying effective training strategies;
3. Developing appropriate assessment tools;
4. Evaluating and improving job retention programs and services;
5. Developing strategies to promote career advancement;
6. Identifying effective support services;
7. Understanding the impact of self-directed employment services;
8. Improving interventions to assist the hardest-to-serve, including welfare recipients and the homeless;
9. Developing the potential of telecommuting.

HOW THE RESEARCH PLAN WAS DEVELOPED

The Research Plan was developed through a well-defined process based on a Delphi method that relied on the collective wisdom, experience and judgment of a group of experts to guide the development of the Plan and the identification of high priority research topics. This process used an Expert Panel consisting of eleven well-respected, well-informed practitioners, researchers and other stakeholders in employment and training. Each member of the Expert Panel had an extensive role in providing input throughout the development of the Plan. The Expert Panel's input was based on the member's expertise in the employment and training field, a review of past research in employment and training and of methodological issues and substantial input from stakeholders.

The Research Plan reflects many comments from stakeholders in employment and training research, research and policy offices within DOL, ETA program offices, and research offices of other Federal agencies. To solicit individual comments, the Research Plan was posted and promoted on the web site of the John J. Heldrich Center for Workforce Development at Rutgers University, where comments and suggestions for future research were collected. A variety of means, including a request for input in the Federal Register, a Training and Employment Information Notice (TEIN) and a mailing to over 1,000 individuals, were used to notify and seek comment from stakeholders in employment and training programs of the development of the Plan.

[3] The Research Plan provides a strategic vision for efforts concerning areas related *only* to pilots, demonstrations, research, and evaluation studies (including those with multiservice and multistate characteristics); the Research Plan does not reflect other areas of workforce development that ETA funds, such as technical assistance, staff training, and capacity-building. The five-year focus of the Research Plan is intended to support and complement ETA's annual WDIP process for identifying potential pilot, demonstration, research, and evaluation projects for the forthcoming program years.

On July 27, 1999, DOL and the Heldrich Center for Workforce Development at Rutgers University convened a National Workforce Development Research Symposium in Washington, DC. This one-day symposium brought together over 120 individuals who offered their opinions on high priority areas for future research in employment and training.

SCOPE OF THE RESEARCH PLAN

While WIA requires that the plan cover employment and training efforts relating to pilots and demonstrations, multi-service, research, and multi-state projects, DOL has also decided to include evaluations in the plan to provide the most complete picture of possible research-related topics.[4]

The Research Plan carefully balances the following types of research:

1. Evaluations of existing programs that assess which programs are working and, in combination with performance standards, ensure accountability; and

2. Applied research (a demonstration and its evaluation), including labor market research, that endeavor to test new approaches and describe the most successful and best practices, with the aim of providing guidance to policymakers and practitioners.

The Research Plan covers both areas, but will emphasize research and demonstration projects that provide the opportunity to test new approaches and describe the most successful and best practices to improve existing programs and create new programs.

[4] Additionally, Section 172 of the WIA requires the continuing evaluation of programs and activities, including the programs and activities carried out under Section 171, for the purpose of improving the management and effectiveness of programs and activities. This section requires that evaluations utilize appropriate methodology and research designs, including the use of control groups chosen by scientific random assignment methodologies. The Research Plan addresses this issue in Section V: Review of Alternative Methodologies for Employment and Training Research.

HOW THE PLAN IDENTIFIED HIGH PRIORITY RESEARCH PROJECTS

The Research Plan identifies nine high priority research topics that will help DOL and ETA better understand the labor market. The analysis focused particularly on the effectiveness and efficiency of programs and services designed to assist individuals who lack employment and employers who need to hire employees. These high priority research topics were identified by the Expert Panel based on input from stakeholders and analysis and research summarized in the Research Plan.

The analysis and research performed by the Research Plan team included a review of:

- Significant studies that address key labor market issues, such as the skill requirements of employers and the changing structure of work.
- Recent policy changes that will have an effect on employment and training interventions and, as a result, on those subject areas and topics where future research is needed.
- Recent research, evaluation, pilot, and demonstration initiatives to understand the effectiveness of employment and training interventions designed to assist employers and job seekers, including existing programs, pilots, and demonstrations.
- Alternative methodologies used in employment and training research, to provide guidance to the DOL on the appropriateness of various research methodologies.

In determining the high priority topics, Expert Panel members voted from a list of topics. These results were discussed, consensus was reached, and panel members ultimately identified nine subject areas for where they believed DOL should focus on over the next five years. In addition, five general recommendations were also identified during the development of the Research Plan.

The Expert Panel selected the high priority research topics according to their potential to:

- Provide usable information that is not currently available;
- Assist DOL in the implementation of WIA and/or other authorized programs of ETA;
- Improve existing DOL and ETA programs or provide guidance for designing new interventions to assist jobseekers and employers.

HIGH PRIORITY RESEARCH TOPICS

1. Understanding the Role of Intermediaries in the Labor Market

Organizations outside of the public employment and training system play a significant role in bringing together individuals who lack employment and employers who need to hire employees. These intermediaries can take many forms and range from non-profit community-based organizations to for-profit temporary service companies.

Research funded by the Department of Health and Human Services has focused on the role intermediaries in Welfare-to-Work programs. The Research Plan finds that the role all of these organizations play in the labor market must be understood more thoroughly to allow for the development and refinement of government interventions to assist individuals become employed. In addition, the public employment and training service should be able to adapt effective practices from these intermediaries in order to strengthen existing programs and/or services or identify new ones.

The Research Plan identifies a number of key issues that DOL should pursue in future research, including:

- What role do intermediaries, including but not limited to temporary agencies and community-based organizations, play in the labor market?
- What is the role of intermediaries in supplying employment and training services?
- Do intermediary agencies, including but not limited to community-based organizations and temporary agencies, offer new approaches and techniques that can be adapted by the public-sector employment and training community?
- What are the implications of the labor market role of intermediaries for public employment and training programs?

2. Identifying Effective Training Strategies

The Research Plan finds that DOL must identify the training strategies that are most effective at giving individuals the skills they need to become employed. These strategies must take into account the way in which adults, including those with limited formal education and work experience, learn new skills. They also must take into account the historic changes taking place in the labor market, as technology and computer skills become a threshold requirement for most well-paying jobs.

New Technology

Training strategies and service delivery should reflect the rise of new technologies. The Internet makes distance learning possible and a number of internet-based virtual universities have already been established. The role of the Internet in promoting and providing job-related education and training is certain to skyrocket in the years ahead.

Linking Training to the Needs of Employers
According to past research, training is most effective when it is closely linked to the needs of employers. The Research Plan finds that sectoral training strategies—which bring employers with similar skill needs together with training providers—have shown potential in assisting individuals to obtain the skills they need to become employed. However, the Plan recommends additional research to fully understand the potential of these and other strategies that strive to link the needs of employers with training curricula.

Training for Employed Individuals
Today's economy requires that employers and workers adapt to constant change. To meet these demands, all individuals must continuously work to upgrade their skills. Corporations, nonprofits, and training institutions need to apply new emphasis to assisting employed individuals upgrade their skills, through on-site or off-site training.
The Plan recommends that DOL address these critical research questions surrounding training for workers and the unemployed:

- What is the most effective way to teach workforce readiness skills to adults, including those that have limited formal education and work experience?
- In what ways can new technologies improve skills training?
- How can training curricula incorporate the skills most needed by employers? Are sectoral training strategies effective at increasing the long-term employment and earnings of individuals?
- How can training services be designed to assist employed individuals to obtain new skills?

3. Developing Appropriate Assessment Tools

Providers of employment and training services use assessment tools to help develop a service strategy for participants. Employers use assessment tools to identify the skill levels and proficiencies of potential employees and to identify the training needs of current employees.

The Research Plan finds that the assessment tools used by employers must be identified and understood to better inform the use of these tools by providers of employment and training services. In addition, the Research Plan finds that existing assessment tools used by providers of employment and training services should be reviewed to identify those tools that are most effective at assessing the skills levels of individuals.

A number of questions remain unanswered, including:

- What types of assessment tools are used by employers to determine the skill levels and proficiencies of potential employees?
- Which tools are most effective at assessing the skill levels of youth and the hardest to serve population?
- How can assessment tools be used at One-Stop Career Centers to ensure that individuals receive the most appropriate services?

4. Evaluating and Improving Job Retention Programs and Services

Both WIA and the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996 promote rapid entry into employment. Under WIA, only individuals who are unable to obtain employment through core or intensive services may be eligible for job training. With the passage of PRWORA, time-limited benefits and significant work requirements replaced cash benefit entitlements. As a result of these policy changes, individuals with few skills or work experience are being placed into entry-level jobs. Despite the strong economy and the substantial decline in welfare rolls, the extent to which low-skill workers and former welfare recipients are able to retain jobs and advance in them remains to be seen.

Past evaluations of employment and training programs have demonstrated that many individuals, including disadvantaged adults, dislocated workers, and youth, who successfully obtain employment often face additional barriers to remaining employed. In the past, employment and training services focused primarily on assisting unemployed individuals to find jobs. Increasingly, however, employment and training interventions are emphasizing strategies that will assist individuals to remain employed. Yet, research on the effectiveness of existing retention strategies is limited and needs to be expanded.

The Research Plan identifies a number of areas for expanding research into new and improved strategies for retention:

- Which post-employment services are most effective in helping individuals, including youth, dislocated workers, disabled individuals and disadvantaged adults, to remain employed?
- How can the Work Opportunity Tax Credit and the Welfare to Work Tax Credit be used in conjunction with other services to assist individuals to remain employed?
- What are the impacts of financial incentives, such as reemployment bonuses, wage supplements, and retention bonuses, on job retention?

5. Developing Strategies to Promote Career Advancement

Many disadvantaged and low-skill individuals working in entry-level jobs find it hard to acquire the skills they need to obtain promotions and wage increases. Increasingly, private and nonprofit employers are developing strategies to assist these individuals acquire the skills they need to move ahead. While some strategies provide a range of skill training to employed workers, others create career ladders inside companies targeted to the skills that allow and encourage workers to advance in their careers within an organization.

While obtaining new skills and absorbing organizational lessons and culture are always critical to individual job mobility, the changing nature of today's economy requires a commitment to lifelong learning and career advancement from every worker, and to every worker. The career strategies that were once important to the ambitious and upwardly mobile need to be built into training services for the workforce at large.

A number of important areas need further research:

- Which post-employment services are most effective in assisting individuals to advance in their careers?
- How can sectoral training strategies be used to create career ladders for welfare recipients and other disadvantaged individuals?
- How can transitional employment be used in conjunction with other services to assist welfare recipients to obtain higher wages and permanent employment?

6. Identifying Effective Support Services

Some individuals need additional support services to overcome barriers to employment. These services include childcare, transportation, and housing assistance. While the size and scope of the federal government's role in providing a safety net to low-income Americans is still a matter of policy debate, public programs and services should be as effective and useful as possible in moving individuals into the labor market. Working mothers, whether single or married, often have difficulty finding accessible, affordable and quality care for their children. In addition, transportation can be a barrier to finding and retaining employment for individuals who do not own a car or have access to public transportation. The Research Plan finds that significant research is needed on the provision of effective support services in a "work first" system:

- What is the impact of the availability of and access to childcare services on the employment decisions of individuals with young children?
- Which methods of allocating childcare subsidies (tax credits, vouchers, cash assistance, and contracts between public entities and third-party vendors) improve access to childcare?
- What transportation strategies are most effective in assisting individuals who lack reliable and affordable transportation to find and retain employment?

7. Understanding the Impact of Self-Directed Employment Services

WIA emphasizes self-directed job search and career management. Through the One-Stop system, which includes local One-Stop Centers, satellite centers and various electronic linkages, all individuals have access to core services such as labor market information and job listings. Because access to staff-assisted, intensive services (e.g., group and individual counseling) is limited to harder-to-employ jobseekers, the role of "self-serve" resources has become more important. These core services are increasingly offered through Internet-based or computer-based systems (e.g. America's Job Bank, America's Talent Bank, and the O*NET system). Even those individuals eligible for Individual Training Accounts (ITAs) will select a training provider from a list of eligible providers that will be displayed through a self-guided consumer report card system.

This new emphasis on self-directed Internet and interactive information tools raises important implications for both job seekers and employers. Yet, little is known about how such innovations will impact labor exchanges. A host of critical questions remain, according to the Research Plan:

- How can new technologies increase access to employment and training services for jobseekers and employers?
- What are the demographic characteristics of individuals and employers that use America's Job Bank?
- To what extent do individuals obtain employment as a result of using America's Job Bank and America's Talent Bank?
- Do America's Job Bank and America's Talent Bank complement or substitute for local labor exchange services? If they serve as substitutes, are they more effective at assisting individuals to obtain employment than services delivered exclusively at the local level?

8. Improving Interventions to Assist the Hardest to Serve, Including Welfare Recipients and the Homeless

The number of individuals who are receiving welfare benefits and other employment and training services has decreased in the past five years due to a healthy economy and new policies. Those individuals who continue to be in need of services often face multiple barriers to employment. These individuals often lack the education and skills demanded in the job market and have limited work experience and familiarity with the soft skills needed for successful job performance. In addition, many of these individuals need support services, including child care, transportation aid, substance abuse treatment, and transitional housing. Finally, some of these individuals have other barriers to employment including mental illness, domestic violence, substance abuse, physical disability, and homelessness.

The Plan identifies a number of directions for further research in designing these strategies. They include:

- To what extent does the workforce investment system have the capacity to provide services appropriate for the hardest to serve?
- What are the most effective strategies for combating such barriers to employment as mental illness, domestic violence, substance abuse, physical disability, and homelessness?

9. Developing the Potential of Telecommuting

New technologies including the personal computer, the fax machine, and the Internet, have made it possible for some employees to perform their jobs at home or off-site. While less than 10% of American workers telecommute at least occasionally, it has become an attractive option to many employees who are looking for new ways to balance work and family.

Although telecommuting is most available as a work option for workers in higher income brackets, it may be an effective strategy to assist lower-income individuals to obtain and retain employment. Some policymakers and scholars have suggested telecommuting as a possible strategy for assisting residents of communities with limited job opportunities to have access to jobs located outside their neighborhoods. In addition, telecommuting may also allow some disabled individuals the flexibility they need to become and remain employed. Despite the promise of telecommuting and new technologies for reducing sprawl, addressing work and family issues, and helping employers and workers find each other, many questions remain. The important areas for DOL research include:

- Does telecommuting have the potential to assist disabled individuals to obtain and retain employment?
- Can telecommunication centers connect low-income urban job seekers who lack local employment opportunities to suburban jobs?
- To what extent can telecommuting address the location barriers of rural job seekers?
- Does telecommuting improve worker productivity?
- Does telecommuting enhance workers' abilities to balance work and family?

10. General Recommendations

In addition to the nine subject areas summarized above, the Expert Panel identified five general recommendations for where they believed DOL/ETA should focus on over the next five years. These recommendations are listed below:

a. Dissemination of Research Findings

In order to fully assist DOL in the implementation of WIA and other programs of ETA, research findings must be effectively disseminated to practitioners at all levels of the workforce development system. DOL should build on existing efforts to ensure that timely and usable research findings are made available to a wide audience.

b. Research Collaboration between DOL/ETA and Other Federal Departments

DOL currently collaborates with other federal departments on research in the areas of employment and training. These efforts should be expanded to allow for the efficient use of resources.

Collaborative research efforts should be pursued with the U.S. Department of Health and Human Services, the Department of Education, the National Science Foundation, the U.S. Department of Housing and Urban Development, and the U.S. Department of Transportation on issues of mutual concern. For example, DOL should work closely with the Department of Health and Human Services on research efforts related to interventions to assist the hardest to serve, including welfare recipients and the homeless with multiple barriers to employment.

c. Creation of a Clearinghouse for Labor Market Data

DOL should work with other relevant departments to create a central clearinghouse for datasets on labor markets and employment and training interventions. This clearinghouse should be accessible through the Internet.

d. Ph.D. Dissertation Program for Employment and Training Research

DOL/ETA Office of Policy and Research should fund Ph.D. dissertations in the field of employment and training. Past funding of this program increased the amount of research being conducted in the field and helped to build a group of scholars with career-long commitments to the field.

e. Increased emphasis on comparative international research, particularly on programs in other industrialized nations most comparable to the U.S.

Many industrialized countries around the world face many of the same employment and training challenges as the United States. As a result, comparative international research can be helpful to DOL in the identification of new strategies for employment and training interventions.

SECTION I.

INTRODUCTION

SECTION I. INTRODUCTION

Section 171 of the Workforce Investment Act (WIA) of 1998 requires that the Secretary of Labor prepare a five-year plan ("the Research Plan") for pilot, demonstration, research, evaluation, multistate, and multiservice initiatives every two years for the Employment and Training Administration (ETA).[1] This Research Plan will cover the period of July 2000 to June 2005.[2]

> Section 171 of the Workforce Investment Act states that, after consultation with States, localities, and other interested parties, the Secretary shall publish every two years in the *Federal Register* a plan that describes the demonstration and pilot (including dislocated worker demonstration and pilot), multiservice, research, and multistate project priorities of the Department of Labor concerning employment and training for the 5-year period following the submission of the plan. Copies of the plan shall be transmitted to the appropriate committees of Congress. The plan shall contain strategies to address nationa employment and training problems and take into account existing factors such as: the availability of existing research (as of the date of the publication); the need to ensure results that have interstate validity; the benefits of economies of scale and the efficiency of proposed projects; and the likelihood that the results of the projects will be useful to policymakers and stakeholder in addressing employment and training problems.

This requirement provided the U.S. Department of Labor (DOL) with an opportunity to develop a strategic vision for research efforts based upon extensive input from stakeholders, a review of recent research efforts, an identification of areas where future research may be needed, and a review of possible research methodologies.[3]

This Research Plan reflects many comments from stakeholders in employment and training research, research and policy offices within DOL, ETA program offices, research offices from other Federal agencies, and members of an Expert Panel. A Training and Employment Information Notice (TEIN) and an announcement published in the *Federal Register* requested

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[1] ETA conducts pilots, demonstrations, research, and evaluations with the "research" objective(s) of: testing new approaches; describing the most successful and best practices to improve existing programs and create new programs; and filling in the gaps in knowledge on employment and training issues. As a result, throughout the text of this Research Plan, the term "research" is widely used to refer to all pilots, demonstrations, research, and evaluations, including those with multistate and multiservice characteristics.

[2] Through the ETA's annual research procurement planning process, which is the Workforce Development Investment Plan (WDIP), projects with multistate and/or multiservice characteristics are conducted and funded as either a pilot, demonstration, research, or evaluation project. As a result, "multiservice projects" and "multistate projects" are not specifically mentioned but are implied throughout this plan as being carried out as a pilot, demonstration, research, or evaluation project.

[3] The Research Plan provides a strategic vision for efforts concerning areas related *only* to pilots, demonstrations, research, and evaluation studies (including those with multiservice and multistate characteristics); the Research Plan does not reflect other areas of workforce development that ETA funds, such as technical assistance, staff training, and capacity-building. The five-year focus of the Research Plan is intended to support and complement ETA's annual WDIP process for identifying potential pilot, demonstration, research, and evaluation projects for the forthcoming program years.

input from State and local workforce development agencies. Additionally, a Research Plan web site on the Internet disseminated draft plans and collected comments from stakeholders in the employment and training community. The Research Plan also incorporates suggestions and comments made by participants at the National Workforce Development Research Symposium held on July 27, 1999 in Washington, DC. The John J. Heldrich Center for Workforce Development at Rutgers University provided staff assistance to DOL during the development of the Plan.

A. SCOPE OF THE RESEARCH PLAN

The Research Plan identifies the potential pilot, demonstration, research, and evaluation efforts that will most assist DOL in the implementation of WIA and other authorized programs of ETA. While WIA requires that the plan cover employment and training efforts relating to pilots and demonstrations, multi-service, research, and multi-state projects, DOL has decided also to include evaluations in the plan. DOL believes that the inclusion of evaluations will provide the most complete picture of possible research-related topics.[4]

The Research Plan carefully balances between the following types of research:

1. Evaluations of existing programs that assess which programs are working and, in combination with performance standards, ensure accountability; and

2. Applied research (a demonstration and its evaluation), including labor market research, that endeavor to test new approaches and describe the most successful and best practices, with the aim of providing guidance to policymakers and practitioners.

These efforts might include pilots and demonstrations that test new or improved performance measures. Evaluations of existing programs allow for an assessment of whether employment and training programs are meeting their goals that supplement data available through performance management and reporting systems. The Research Plan will cover both areas, but will emphasize research and demonstration projects that provide the opportunity to test new approaches and describe the most successful and best practices to improve existing programs and create new programs.

[4] Additionally, Section 172 of the WIA requires the continuing evaluation of programs and activities, including the programs and activities carried out under Section 171, for the purpose of improving the management and effectiveness of programs and activities. This section requires that evaluations utilize appropriate methodology and research designs, including the use of control groups chosen by scientific random assignment methodologies. The Research Plan will address this issue in its Section V: Review of Alternative Methodologies for Employment and Training Research.

The Research Plan will consider the following issues specified in Section 171 of the WIA:

- Availability of existing research;
- The need to assure interstate validity;
- The benefits of economies of scale;
- The efficiency of proposed projects;
- And the likelihood that the results of the projects will be useful to policymakers and stakeholders in addressing employment and training problems.

B. PROCESS FOR THE DEVELOPMENT OF THE RESEARCH PLAN

Expert Panel

The Research Plan was developed through a well-defined process based on a Delphi method that relied on the collective wisdom, experience and judgment of a group of experts to guide the development of the Plan and the identification of high priority research topics. This process used an Expert Panel consisting of eleven well-respected, well-informed practitioners, researchers and other stakeholders in employment and training.[5] Each member of the Expert Panel had an extensive role in providing input throughout the development of the Plan. The Expert Panel's input was based on the member's expertise in the employment and training field, a review of past research in employment and training and of methcdological issues and substantial input from stakeholders,

In February 1999, the Expert Panel met to provide guidance on the development of the plan outline. In June 1999, the Panel met again to comment and offered their suggestions on the early draft of the plan. In October 1999, the Panel met for a third time to discuss the development of the list of high-priority subject areas. In determining the high priority topics, Expert Panel members voted from a list of topics. These results were discussed, consensus was reached, and panel members ultimately identified nine subject areas for research where they believed DOL should focus on over the next five years. In addition to the three Expert Panel meetings, panel members provided informal input and guidance throughout the development of the Research Plan.

The John J. Heldrich Center for Workforce Development at Rutgers University provided staff assistance to DOL in the development of the Research Plan, including preparing drafts of the Research Plan. Available drafts of the Research Plan were for discussion only, and not for reproduction or quotation. DOL had the final responsibility for revising the drafts of the Research Plan into a final Research Plan, clearing the final Research Plan, publishing the final version of

[5] A list of the members of the Expert Panel is included in Appendix A.

the Research Plan in the *Federal Register*, and transmitting the Research Plan to Congress, as required by WIA.

The development of the Research Plan was informed by the input of a wide range of individuals and organizations.[6] Research and policy offices of DOL and the program offices of ETA provided input throughout the development of the Research Plan. In addition, DOL solicited input from a number of Federal agencies. The Research Plan team met with staff of the research and policy offices of the U.S. Department of Health and Human Services and the U.S. Department of Education. In addition, a National Workforce Development Research Symposium and the development of a web site (http:// www.heldrich.rutgers.edu / USDOL-ETA-ResearchPlan) were used to obtain input on the plan from States and localities, and other stakeholders in the employment and training community outside the Federal government. In addition, draft versions of the Research Plan were available on the Research Plan web site for public comment.

Development of a Web Site

Beginning in July 1999, the Heldrich Center created and hosted a web site to obtain additional input. The site (http://www.heldrich.rutgers.edu/ USDOL-ETA-ResearchPlan) contained early drafts of the Research Plan for review and comment. Users also had the opportunity to offer suggestions for future research topics. Experts and stakeholders in research and evaluation in employment and training were notified of the web site through a mailing. The DOL/ETA web site contained a direct link to the Research Plan web site. The web sites of the Interstate Conference of Employment Security Agencies (ICESA) and of the Welfare Information Network contained direct links to the Research Plan web site as well.

Federal Register and Training and Employment Information Notice (TEIN)

A notice of the development of the Research Plan and the convening of the National Workforce Development Research Symposium was published in the Federal Register on July 15, 1999. The Federal Register notice announced that copies of the drafts of the Research Plan were available through the Research Plan website or by mail, if requested, and that comments on the draft plans could be sent through the Research Plan website, by fax, or by mail. A TEIN was also published to obtain input from State and local workforce development agencies.

National Workforce Development Research Symposium

On July 27, 1999, DOL convened a National Workforce Development Research Symposium in Washington, DC. This one-day symposium brought together over

[6] A list of individuals who contributed to the development of the Research Plan is located in Appendix C.

120 individuals with expertise in research policy and as practitioners in employment and training. Invitations to the Symposium were mailed to experts and stakeholders in employment and training research. Notice of the Symposium also was included in the Federal Register.

The Research Symposium consisted of nine sessions arranged around particular topic areas. Topics included:

1. Understanding the labor market
2. Interventions to assist dislocated workers
3. Interventions to assist in-school and out-of-school youth
4. Unemployment insurance
5. New tools in employment and training including: self-employment assistance/ micro-enterprise development, and re-employment incentives
6. Interventions to assist individuals with disabilities and other special populations
7. Interventions to assist adults including: welfare recipients and disadvantaged adults
8. Appropriate methodologies for employment and training research and national datasets needed for employment and training research
9. Cross-cutting issues in employment and training

Each session was facilitated by a DOL official or a staff member of the Heldrich Center and featured short opening comments from discussants, selected due to their expertise in specific subject areas, and open discussion among those in attendance. Input from these sessions was used to help develop all sections of the Research Plan.

Completion and Publication of the Research Plan

Several drafts of the Research Plan were developed prior to the completion and publication of this final Research Plan. Revisions on draft plans were based on comments and input received from various individuals of the employment and training community. This final Research Plan supersedes all prior drafts that were either posted on the Research Plan website or printed and distributed for discussion only.

Process for Developing Specific Sections of the Research Plan

The Research Plan consists of six sections:

1. Introduction

2. Review of relevant literature concerning the functioning of the labor market and identification of areas where additional research is needed
3. Summary of recent policy changes in employment and training

4. Review of recent research, evaluation, pilot, and demonstration initiatives and identification of research needs

5. Analysis of alternative research methodologies that should be used for various types of employment and training research

6. Recommendations for high priority subject areas for future research

Development of Section II: Understanding the Functioning of the Labor Market

The primary purpose of research funded by DOL/ETA is to provide a better understanding of the labor market and, more specifically, the effectiveness and efficiency of programs and services designed to assist individuals who need employment (the supply of labor) and employers who need to hire employees (the demand for labor).

Employment and training interventions that are designed to assist individuals who need employment (the supply of labor) and employers who need to hire employees (the demand for labor) must focus on helping job seekers and employers adapt to the ever-changing labor market. These changes, including the skill requirements of employers, the structure of work and the earnings and compensation patterns of various groups of individuals must be better understood and their implications for employment and training interventions must be examined in order to allow for the improvement of existing programs and the design of new programs. As a result, significant studies that address these and other related issues were reviewed.

Development of Section III: Changing Policies for Employment and Training Interventions: The Workforce Investment Act of 1998 and One-Stop Intervention

Recent policy changes will have an effect on employment and training interventions and, as a result, on those subject areas and topics where future research is needed. These changes were reviewed to provide a policy context for the Research Plan.

Potential research topics / subject areas were identified that would most assist DOL in implementing WIA. These areas were identified based upon input gathered through the Research Plan web site, from the National Workforce Development Research Symposium, and from research and policy offices of DOL and the program offices of DOL / ETA. In addition, current research efforts funded by DOL were also taken into account.

Development of Section IV: Review of Recent Research, Evaluation, Pilot, and Demonstration Initiatives and Identification of Research Needs

In order to determine areas where additional research is needed, the Research Plan includes a review of recent research, evaluation, pilot, and demonstration initiatives. This review focuses on understanding the effectiveness of employment and training interventions designed to assist employers and job seekers, including existing programs, pilots, and demonstrations. This review covers recent research and demonstrations and key findings from studies.

The review focuses on research that will most assist DOL in implementing WIA. As a result, the review includes the findings of research efforts funded by DOL during the past ten years and the findings of significant research published in the academic literature. This review includes relevant research funded by the U.S. Department of Health and Human Services, U.S Department of Education, and other Federal agencies, as appropriate.

Development of Section V: Review of Alternative Methodologies for Employment and Training Research

Various methodologies are used in employment and training research. Each methodology has its own strengths and weaknesses. In order to provide some guidance on the appropriateness of various research methodologies, a review of alternative methodologies was conducted.

This review consists of two sections:

1. An examination of alternative methods for understanding the labor market.

2. An examination of the strengths and weaknesses of alternative methods for studying employment and training interventions, including existing programs, pilots, and demonstrations.

Development of Section VI: High Priority Research Topics / Subject Areas

The Research Plan includes recommendations for nine high priority research topics / subject areas. These recommendations were developed by the Expert Panel based on input from experts and stakeholders in research in employment and training and on analysis and research included in sections II, III, IV and V of the Research Plan.

The high priority research topics / subject areas were selected according to their potential to:

- Provide usable information that is not currently available;
- Assist DOL in the implementation of WIA and/or other authorized programs of ETA;
- Improve existing DOL and ETA programs or provide guidance for designing new interventions to assist jobseekers and employers.

In June, July, and August of 1999, a list of potential research topics was developed through extensive outreach efforts. A mailing, requesting input into the creation of this list, was sent to experts and stakeholders in research and evaluation in employment and training. These individuals had the option of responding by mail or through a web site specifically developed for the Research Plan. In addition, participants in the National Workforce Development Research Symposium had the opportunity to contribute to the creation of this list.

A separate document entitled, *Input Form: High Priority Research Topics/ Subject Areas*, was posted on the Research Plan's web site on October 14, 1999. Individuals were invited to download the document and submit their suggested high priority research topics/ subject. This input was used to assist the Expert Panel in recommending high priority research topics/ subject areas to DOL/ETA.

SECTION II.

UNDERSTANDING THE FUNCTIONING OF THE LABOR MARKET

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Globalization, technological change, and restructuring of institutions from major corporations to government at every level–all are unquestionably transforming the ways in which Americans earn their livings. Amid these changes, the United State's economy has been strong, with low levels of unemployment and strikingly small increases in inflation.

There's a lively debate among economists and policy analysts about how profound and how positive these changes are and how they will affect America's economy.[1] Although there are many voices and views in this debate, there does appear to be a fundamental fault line. On one side are those who argue that we are on the cusp of a "New Economy," in which technological change will drive rapid growth in the demand for skilled workers, in productivity, and in incomes. On the other side are those who see a return to slow growth in productivity and earnings, once the business cycle runs its course. On both sides of the debate there are differing views on the implications of economic trends for business cycle volatility, occupational change, job structures, and wage inequality.

How the labor market actually responds to the forces remaking the economy is important to everyone: workers, employers, job seekers, students, educators, and providers of training and employment services. Before we can evaluate their impact, we need to determine which economic trends are clear and likely to continue—and which are ambiguous and likely to vary or vanish. This section will draw this distinction, concentrating on four components of labor market dynamics:

- employer demand for skills;
- changes in labor supply and in the acquisition of skills;
- the structure and organization of work;
- changes in wages and compensation.

Throughout this analysis, the impact of different causes will be discussed, based on a review of recent literature. These factors can be grouped into two major categories:

[1] Most research that informs this debate was conducted with data collected during the early and mid-1990s. New research that investigates the recent effect of a strong economy on these labor market trends is clearly needed.

.. the impact of market forces, including the influence of technological change;

.. changes in institutions or regulatory structures that shape the labor market—from family structures to union densities and minimum-wage laws.

A. SKILL REQUIREMENTS IN THE KNOWLEDGE-BASED ECONOMY

Employers are demanding ever-higher skill levels from prospective employees. This trend has persisted throughout the post–World War II period. There is much uncertainty about the pace, the evenness, and the nature of this change. But there is little doubt that there is a general upward trend in the level of skill demanded by employers, and that Americans are responding by attaining higher levels of education and training.

This trend can be seen in:

- a shift in the distribution of occupations towards higher skill categories;
- an increasing number of studies indicating rising skill requirements within industries or sectors;
- the rising education level of the workforce.

Specific evidence includes the following:

.. Over the long term, occupations with higher education and skill requirements have grown faster than those occupations with lower skill requirements. By one calculation, the share of professional and skilled workers grew from 40% of the workforce in 1950 to 80% in 1997 (Stuart, 1999; also see Carnevale and Rose, 1998).

.. While case study literature is far from unanimous on this point, a number of more recent studies have documented increasing skill levels in a range of manufacturing and service industries (also see Bailey, 1995; Ackerman et al., 1998).

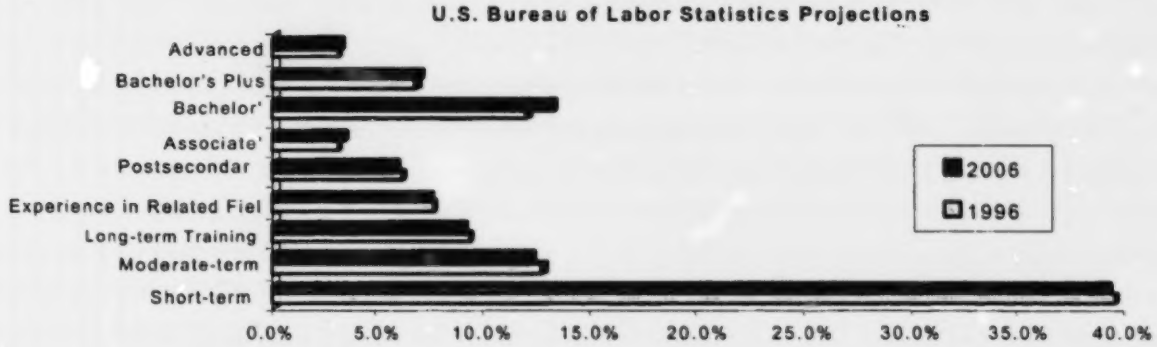
.. The educational attainment of adults has risen steadily since 1950. The share of adults who are high school graduates grew from 33% in 1950 to 83% in 1998. The share of those with at least four years of college rose from 6% to 24%. Although this is not a direct indication of rising skill levels, it would be difficult to reconcile a trend of this length and consistency with static or declining skill demands.

Is Demand for Cognitive Skills Accelerating?

Is technology in general—and computer technology in particular—accelerating the growing demand for highly skilled workers? The evidence is ambiguous. Conventional wisdom holds that, starting in the late 1970s, computers hastened the elimination of low-wage jobs while greatly increasing the demand for workers with strong cognitive and technical skills. The widening wage gap between college and noncollege workers in the 1980s and 1990s is the most often cited evidence, but further direct documentation is hard to come by. For instance, one study of computer usage and worker education found that the demand for skilled labor grew more rapidly after 1970 and that computer use statistically explains 30 to 50% of the recent acceleration in the demand for skilled labor (Autor, Katz, and Krueger, 1998). A different study, using a broader definition of technology, found no acceleration in skill demand or in the correlation between technology and education (Mishel, Bernstein, and Schmitt, 1999).

As shown in Figure 1, the most recent occupation projections by the Bureau of Labor Statistics indicate a gradual rather than an accelerating increase in the level of education required in the workplace. Based on current estimates of education requirements for specific occupations, the share of jobs requiring a bachelor's degree or higher is expected to increase only marginally from 22% in 1996 to 23% in 2006. Jobs that require no postsecondary education or training will still constitute two-thirds of employment in 2006. In addition, although 34% of the job growth between1996 and 2006 will be in occupations requiring a college degree, only 24% of job *openings* over the decade will be in these occupations. This is because workers exit low-skill occupations at a faster rate than high-skill occupations, leaving a larger number of openings to replace workers in existing jobs.

Figure 1.1: Education and Training Requirements of All Jobs, 1996 & 2006



Because these projections do not account for changing requirements *within* occupations, they probably understate the rate at which education requirements are increasing. For example, the average education requirement for registered nurses is still an associate's degree, although an increasing number enter the field through bachelor's degree programs.

In fact, the average education and training needed for a person's *career* is higher than the average requirement of specific *jobs* at any point in time. For example, students who will take on high-skill careers once they complete their education fill many low-skill jobs. Also, many entry-level workers will eventually receive training or experience that will qualify them for higher-skill jobs. Therefore, the statement that two-thirds of all jobs require no more than a high school diploma is factually correct, but misleading.

An Evolving Occupational Structure

Other pieces of the puzzle form an ambiguous picture of the skills required in the evolving economy. According to the Bureau of Labor Statistics:

- Overall, employment growth is expected to slow from 19% from 1986 through 1996 to 14% from 1996 through 2006. That is because of slowing population growth, combined with stronger productivity gains.

- The growth of managers and executives will slow even more, from 28% to 17%, in part because of restructuring in manufacturing industries that will eliminate many midlevel managers.

- Professionals will remain the fastest-growing occupation category, with most of the growth coming from education, health, and computer occupations.

- The growth in sales occupations will slow from 27% to 16%, largely because automated sales systems will reduce the demand for retail sales workers.

- Administrative occupations, including clericals, will be the slowest-growing white-collar occupation, growing by a total of 8%. Clerical occupations that are subject to office automation, such as secretaries and computer equipment operators, are projected to decline. But occupations that are more dependent on personal interactions, such as hotel clerks, receptionists, and teacher's aides, are expected to have a faster-than-average rate of growth.

- Service occupations will grow by 18% and have the second-largest numerical gain, with health service occupations, food service workers, cleaning services, protective services, and personal services all showing substantial gains.

- Precision production, craft, and repair occupations will grow by 7%, slightly better than the 4% growth of the last decade. The largest gains will go to mechanics, installers, and repairers and to construction trades.

.. Operators, fabricators, and laborers will grow by about 9%, as losses in manufacturing are more than offset by new positions for truck drivers, equipment operators, packagers, and other occupations in service industries.

.. The fastest-growing occupations cover a wide range of education and training requirements and earnings levels. These range from computer engineers and systems analysts to home health care aides and recreation attendants.

Another useful perspective is offered by *Education for What? The New Office Economy*, by Anthony P. Carnevale and Stephen J. Rose, a study prepared for the Educational Testing Service. Using a combination of industrial and occupational categories, the analysis developed a new set of categories based on what people actually do at work:

- Extractive Production: The Farm
- Industrial Production: The Factory
- Low-Skilled Services: The Counter
- High-Skilled Services: The Hospital and Classroom
- Administration and Coordination: The Office

Using these categories, they found:

.. Office work dominates the U.S. economy, employing 41% of workers and capturing 50% of earnings. The next three categories—low-skilled services, industrial production, and high-skilled services—each occupied between 16 and 22 percent of the workforce in 1995.

.. The changing composition of the workforce since 1959 is mostly accounted for by an increase in the proportion of office workers and a corresponding decline in the share of factory workers. Except for a rapid increase in high-skilled services in the 1960s, both high-skilled and low-skilled services outside office settings have grown very little as a share of employment.

.. Office workers had the highest annual earnings: $32,500 in 1995 compared to $28,100 for high-skilled services, the next highest sector. While earnings in these two sectors have grown substantially since 1979, earnings in the other sectors have stagnated.

.. A majority of college-educated workers (61% of men and 45% of women) were employed in offices in 1995.

What Kinds of Skills are Employers Looking for?

Both the Bureau of Labor Statistics projections and the Educational Testing Service analysis describe the fastest-growing kinds of jobs and levels of education and training. But these studies don't completely capture the changes in the types of skills that the

economy demands. Are these general skills or job-specific skills? Is information technology creating a demand for broad cognitive skills, complex technical skills—or both? How is the changing organization or work affecting the need for interpersonal and management skills? Which trends are pervasive in the labor market—and which are confined to particular sectors?

Any analysis of skill requirements begins with information technology. As with earlier production technologies, computers and communication networks eliminate the need for some skills, expand the use of others, and create entirely new functions requiring new combinations of skills. What makes computers different is their flexibility and transferability. Earlier technological innovations were concentrated in particular industries, especially manufacturing. But the declining cost of computer technology—and its wide application in almost every sector of the economy—gives it a more pervasive influence than anything since the steam engine and the telephone (McConnell, 1996).

Information technology influences the demand for skills in two different kinds of ways:

- First, there are the skills required to *develop, operate,* and *repair* computers and information networks.

- Second, there are the skills that *use technological capabilities* and *new organizations of work.*

The first set of skills often gets more attention. But the second set of skills has the most far-reaching consequences.

As new generations of Information Technology (IT) were introduced to the workplace, demand for particular sets of technical skills soared, sometimes only temporarily. The introduction of mainframe computers created a demand for computer operators that now is rapidly declining. When personal computers became pervasive in offices in the 1980s, there was a surge in demand for clerical workers with word-processing skills. In the 1990s the Internet and local and wide-area networks have generated rapidly growing opportunities for systems analysts, network administrators, software programmers, and content developers.

The new IT worker generally has more education, a broader range of abilities, and a need for flexible problem-solving and interpersonal skills, as well as specific technical skills. This difference is likely to make this generation of technical workers more adaptable to changing technology.

Demand for this new generation of IT worker began to surge around 1995. Industry surveys and anecdotal evidence suggests that this growth in demand is creating shortages of IT workers. In 1997, an Information Technology Association of America survey estimated that there were 190,000 unfilled IT positions, from financial services to telecommunications. Both industry growth and anecdotal evidence indicate that the shortage may have increased since then (Office of Technology Policy, 1997 and 1998).

However, while the number of IT workers is growing more rapidly than every other category, these workers still represent only 1.6 percent of the workforce. Many more jobs require computer skills, from offices to industrial and commercial settings. As a result of the continued proliferation of computers in a wide-variety of workplaces, computer literacy requirements for many jobs are rapidly increasing (Ralls, 1994).

This increase in the use of computer technology has had an impact on American workplaces, leading to some increases in productivity and making changes in the organization of work possible. For example, computer usage by non-managerial employees has been shown to increase plant productivity (Black and Lynch, 1997). By contrast, however, computer use by managers was found to have no effect on productivity.

Computer networks distribute knowledge widely, providing competitive advantages to organizations with less hierarchical work structures. Globalization and institutional change also encourage more flexible work processes, with more responsibilities for employees. In banking, consumers demand a wider array of products and services, requiring middle-level employees to develop more extensive product knowledge and customer service skills. In apparel, competition and product proliferation force garment shops to change from traditional modular work organizations to groups of workers, requiring workers to perform a wider variety of tasks and improve communication with coworkers and supervisors (Bailey, 1995).

Other studies support the conclusion that technology and new forms of work organization are creating a knowledge-based work process that requires workers to have greater problem-solving abilities, interpersonal skills, and adaptability to change. For example, an examination of the impact of computers on six industries by the Bureau of Labor Statistics found that companies are adopting flatter organization structures, which generally result in a need for more flexible and highly trained workers (McConnell, 1996). In addition, a comprehensive employer survey found that 57% of establishments reported that skills required to perform production and support jobs had increased in the previous three years, and only 5% reported a decrease. The same survey found that a similar percentage had increased formal training over the same period (National Center on the Educational Quality of the Workforce, 1995).

Perhaps the most compelling message comes from the Secretary's Commission on Achieving Necessary Skills (SCANS), which undertook a comprehensive analysis of the skills required in the workplace as a guide to the education and training system (Secretary's Commission on Achieving Necessary Skills, 1991 and 1992). It found that a broad range of skills, from basic literacy and numeracy to interpersonal and problem-solving skills, is necessary for success in the changing labor market. Workplace changes were reported to be:

- Increasing literacy requirements as computers generate a need to interpret verbal and mathematical symbols;

- Expanding the need to think critically and act independently as decisions are made lower in the corporate structure;

- Increasing the need for interpersonal communication and conflict resolution skills, as workers perform increasingly as teams rather than as individuals (Kane et al., 1990).

The Outlook for Skill Requirements

Certain categories of skills are essential for today's workplace—and will be even more important for tomorrow's:

- *Basic literacy and numeracy skills* will be required as a foundation for lifelong learning and adapting to a rapidly changing work environment.

- *Flexible problem-solving abilities* will assume greater importance, as decision making becomes more diffuse in organizations.

- *Interpersonal skills* will receive a higher premium as teamwork and customer service is more closely associated with productivity and profitability.

.. *Technical skills* will be required, including a basic understanding of computer functions and the need for sophisticated IT skills from a small but growing share of the workforce.

B. CHANGES IN THE COMPOSITION OF THE LABOR FORCE AND IN THE ACQUISITION OF SKILLS

It is easier to analyze the supply of labor than the demand for labor. We know how many people there are and when they are working or looking for work. Labor force participation rates can change over time, but the changes are usually gradual. Immigration is the most unpredictable variable regarding the labor force, while college entrance and completions are the most important considerations for the supply of skilled workers.

Considering these facts, we can make the following predictions:

.. The labor force will continue to age as the baby boom generation approaches retirement.

.. The workforce will become increasingly diverse as African-Americans, Hispanics, Asians, and women to a lesser extent, become a larger proportion of the labor force (Figure 2).

.. Education level of the workforce will increase, with higher percentages entering and completing college.

The rapidity and the results of these changes are important. Will the aging workforce result in changes in the supply of skills and the need for different types of education and training services? Will greater workforce diversity be balanced by more equitable access to education and training? How will rising education levels keep pace with increasing skill demands?

Bureau of Labor Statistics Projections

Most of the likely characteristics of the future labor force are described in the Bureau of Labor Statistics' most recent projections:

> Four major demographic events have had a significant change in growth rates of the population and its composition by age, sex, race and Hispanic origin: 1) the birth dearth of the late 1920s and the early 1930s, 2) the baby boom of the late 1940s through the early 1960s, 3) the modest increase in births from the late 1970s through the early 1990s, and 4) the massive immigration that started in the 1970s and has yet to cease (Fullerton, 1997).

Here's how these trends will shape the labor force from 1996 through 2006:

.. Labor force growth will slow to 1.1% per year, down from 1.3% for 1986 to 1996 and 2.1% from 1976 to 1986, as the baby boom generation begins to age beyond its prime work years.

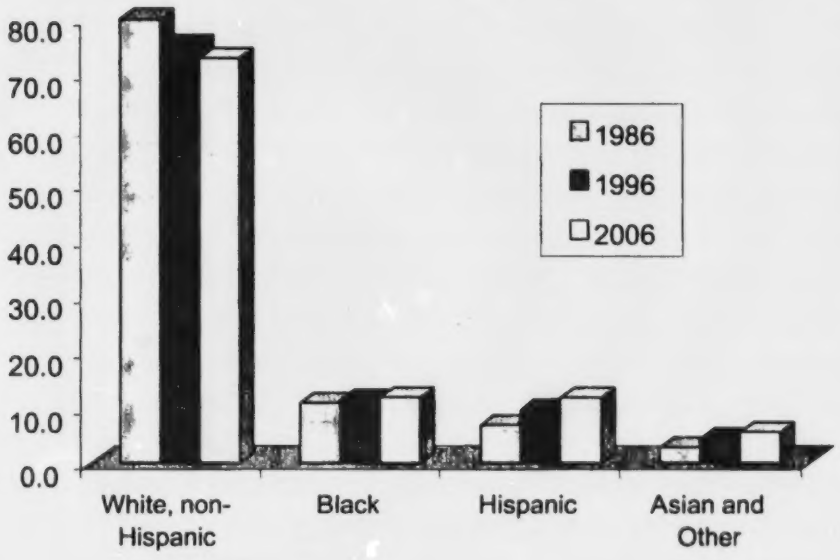
.. Over 3 million workers aged 16 to 24 will be added to the labor force.

.. The number of labor force participants in their prime work years will only grow by 0.5% per year, while the number of workers over 55 will grow by 3.7% per year.

.. The growth of female participation rates will slow, and women's share will only grow from 46% of the labor force to 47%.

.. Hispanics and Asians will be the fastest-growing racial and ethnic groups. By 2006, non-Hispanic whites will decline from 75% to 73% of the labor force. Hispanics and African-Americans will each account for 12%, and Asians will represent 5%.

Figure 1.2: Race and Ethnicity of the Labor Force
1986-2006
U.S. Bureau of Labor Statistics



- Among men, Hispanics have the highest labor force participation rates and African-Americans have the lowest rates. Among women, this is reversed with African-Americans having the highest rates and Hispanics the lowest.

Many of these trends are likely to continue past 2006. The workforce will continue to age, along with the baby boomers. African Americans, Hispanics, and Asians are expected to constitute a majority of the labor force by mid-century.

The next decade will also see a shrinking dependency ratio, with 100 people working for every 93 people not working, because of a declining number of children. Once the baby boomers retire, however, the dependency ratio should again begin to climb.

One implication of slowing labor force growth is the potential for somewhat lower unemployment rates. However, slower growth also reduces demand for consumption, and therefore reduces job growth; increasing productivity could also decrease the level of job creation. Several European countries, in fact, have experienced slow labor force growth and increasing unemployment simultaneously (Mishel and Teixeira, 1991).

Meanwhile, most of the groups that are increasing their share of the workforce have particular needs or have historically faced particular barriers to education or particular industries and occupations. For example, younger workers have particular needs in balancing work and education and in finding suitable entry-level work. African Americans and Hispanics have historically been underrepresented in higher education, and women and minorities have been underrepresented in many higher-wage occupations and industries.

Changes in the Acquisition of Education and Skills

Four factors will determine how fast Americans will acquire the skills they need for the emerging economy—and how equitable that economy will be:

- The quality of K–12 education
- Access to college
- College completion rates
- Access to high-quality skills training and adult education

Postsecondary education has become the dominant characteristic that distinguishes the haves from the have-nots as high school graduates have become more prevalent. High school dropout rates have declined considerably in the 1980s and 1990s, although they remain high in many inner-city areas. As a result of these general decreases, the percentage of high school dropouts among prime-age workers have declined from 54% in 1959 to only 10% in 1996 (Carnevale and Rose, 1998). While the real earnings of college-educated workers have grown since 1979, the earnings of all others have not (Carnevale and Rose, 1998).

As important as completing high school is the quality of education in primary and secondary schools. Since the publication of *A Nation At Risk* in 1983, education quality has assumed a prominent place on the nation's priorities. This concern takes many forms, from increasing efforts by business to national and state initiatives to raise academic standards.

Nothing sums up the challenge as well as two facts:

- First, the abilities learned early in life reverberate throughout a person's education and career. Some have even argued that learning abilities are largely determined before a child enters kindergarten. One implication is that lifelong learning needs to consider the entire learning experience, including the transitions from primary school to high school and from high school to college and the workplace.

.. Second, education quality is not a general problem as much as one of wide differences in quality from one community to another. The majority of the nation's school districts are producing students who are well prepared for the workforce. However, those who are unprepared are concentrated in low-income communities, primarily in urban or isolated rural areas. Since most schools receive close to half of their funding from local sources, the system puts low-income communities at a disadvantage (see Yaro and Hiss, 1996).

Access to postsecondary education—and performance in community colleges, four-year colleges, and vocational training—also help shape opportunities and earnings. In addition to the widening income gap between college- and non-college-educated workers, there is also some evidence that a difference exists between the wages of those with some college education and college graduates, with a smaller difference between those with some college education and high school graduates. Some analyses also indicate that earnings vary based on the number of years in college, as well as by whether students complete a degree, be it an associate's, bachelor's, or vocational degree (Carnevale et al., 1990). Other research has shown that any college education makes a difference, regardless of the type of school or whether a degree is earned. Even without completing a degree, those attending a 2-year college earn as much as 10% more than those without any college education, and the labor market returns per credit are the same for those enrolled in 2-year and 4-year colleges. Additionally, women may receive a greater benefit from college upon receiving an associate's degree, whereas for men an added value in completing a degree only appears after receipt of a bachelor's degree (Kane and Rouse, 1995).

The number of college-educated workers has risen substantially in the postwar period. An examination of college entrants also indicates a steady increase, from 49% of high school graduates in 1972 to 52% in 1982 to 59% in 1992 (Schneider, 1999). There is a somewhat different pattern among men and women. An increasing number of women have been entering college since at least 1965. Male enrollment, on the other hand, peaked during the Vietnam War in the late 1960s, declined through the late 1970s, and then began rising again. In the 1990s, women surpassed men as a share of 18 to 24-year-olds enrolled in college, reversing a historic discrepancy between men and women. As of 1996, 36% of college-age women were enrolled, compared to 34% of men (see Ellwood and Kane, 1998).

As enrollments have increased, there is a growing gap between the *ambitions* of students and actual *outcomes*. College students are taking longer to earn degrees, and there may even be a decline in the share of students who ever earn an associate's or bachelor's degree. In 1972 and again in 1982, nearly 40% of entering four-year students obtained a bachelor's degree in four years. In 1989, only about a third completed in four years. The share that finished in five years also declined slightly, to about 57% (Schneider, 1999).

Even more strikingly, there has been a sharp increase in the degree completion expectations of community college students, even as fewer are successful in eventually completing four-year degrees. Between 1972 and 1982, the number of students entering two-year colleges who expected to earn a bachelor's degree jumped from less than 50% to nearly 70%. Yet the percentage of two-year students who eventually earn a bachelor's degree has always been low and even declined somewhat in the last two decades. Fewer than 15% of students entering two-year schools in 1989 would complete a bachelor's degree by 1994. In addition, the occupational ambitions of students in four-year schools were closely aligned with their educational expectations, while two-year students had higher educational expectations than their occupational ambitions required (Schneider, 1999).

The increase in college enrollments and attainment has also not been distributed equally. Even for students with similar academic achievements, high school graduates with parents who have low incomes or low educational attainment are less likely to attend college than students with high-income or well-educated parents. Further, the influence of family background on college enrollment appears to have grown, in part because of the rising cost of a college education. The share of students in the lowest quartile of family earnings who enrolled in four-year colleges declined slightly, from 29% in the early 1980s to 28% in the 1992. In contrast, the share of college-bound students in the highest quartile rose from 55% to 66%. Among low-income graduates, 40% did not enroll in any kind of postsecondary education, while only 10% of high-income students did not continue with school or training (Ellwood and Kane, 1998).

Meanwhile, training needs for adult workers raise other issues. Highly skilled workers need frequent skills upgrading to stay abreast of rapidly changing work environments. For less skilled workers, literacy skills are critical for expanding employment opportunities. Literacy skills have a strong relationship to employment status and income, with those who have low levels of literacy skills more likely to be unemployed, or to be employed in declining industries, and to have incomes in the lowest quintile (Organization for Economic Cooperation and Development, 1995). However, a surprisingly large number of adults lack the minimal skills for success in a knowledge-based economy. For example, over 20% of adults have literacy and numeracy skills below a fifth-grade level, while another 25 to 28% have skills between a sixth- and eighth-grade level (Stuart, 1999).

A wide variety of institutions meet these needs, from formal employer and union training programs to community colleges that provide increasing numbers of continuing education courses and contract training for employers. Some studies have shown that formal company-provided training adds the greatest value to worker productivity and earnings. However, college-educated workers are much more likely to receive such training, about 90%, compared to high school-educated workers, about 60% of whom receive formal company training (Stuart, 1999).

Throughout our society, the demand for continuing education is large and growing. Over 40% of adults not enrolled in school participated in some form of adult education in 1995, and half of these were enrolled in work-related courses. Adult, part-time enrollments are increasing at both two- and four-year institutions, and employers report an increase in training provided or contracted for (Stuart, 1999). In addition, welfare-to-work policies are likely to create additional demand for basic skill and work readiness training. Even though the programmatic emphasis is on immediate employment, the entry of so many inexperienced workers into the labor market will generate substantial service demands.

The Outlook for a Changing Labor Force

The new American workforce is being reshaped by trends that raise important issues for education, employment, and training systems:

- *Racial and ethnic diversity* will continue to increase, particularly in younger age groups and in metropolitan areas with strong immigration.

- *Aging of the workforce* will continue for at least the next decade, although the number of workers aged 16 to 24 will grow for the first time since the 1970s.

- *Educational attainment* will continue to rise as more high school students choose to enroll in both two-year and four-year colleges.

- *Access to postsecondary education and training* could become increasingly bifurcated as disparities in K–12 education, rising higher education costs, and unequal access to employer-provided training leave low-income students and low-skill workers at a disadvantage.

- *Demand for adult education and training* will increase for workers and job entrants with a wide variety of needs, from basic literacy and English-as-a-Second-Language to the need for second degrees and job-specific training.

These trends will further the expansion of institutions of all kinds that can respond to increased demand for education and training. Private education providers will continue to grow. Community colleges will continue to see their missions, enrollments, and budgets expand. Many will keep struggling to serve several needs simultaneously—remedial education, preparation for four-year schools, vocational training, continuing adult education, and contract services for specific employers. Long-standing labor-management training programs will be restructured as a result of new workplace requirements and changing union membership.

C. CHANGES IN THE STRUCTURE AND ORGANIZATION OF WORK

Changing skill requirements and challenges for labor market institutions are driven by profound transformations in the structure of work. Sociologists, economists, and other observers disagree on the nature, scope, and implications of these transformations. One perspective that captures the complexity of the issues is summarized by Martin Carnoy and Manuel Castells:

> Information technologies and globalization have complex effects. Information technology both creates and destroys jobs, deskills and reskills the workforce. It reverses the salarization of work and the socialization of production that have been typical of the industrial era in favor of decentralized management, individualized work, and customized markets that fragment work and segment societies. Globalization increases competitive pressures on industrialized economies, but it also opens new markets for goods and services. Outcomes depend on the interplay between institutions, firms, and labor force characteristics (Carnoy and Castells, 1998).

This analysis addresses several themes that recur in studies of changing work structures:

- . . less hierarchical organization structures;
- . . more flexible job structures;
- . . rapid changes in work processes;
- . . and declining job security.

These results confirm the conventional wisdom that, at least for men, lifetime employment is being replaced by frequent job changes and more tenuous job security (Carnoy and Castells, 1998; see also Bailey,1995; Mishel, Bernstein, and Schmitt, 1999; McConnell, 1996; Ackerman et al., 1998).

These changes are difficult to quantify. But some measurable transformations can be linked to technological, market, and institutional changes. In addition to changes in skill requirements and compensation, these include changes in job tenure and hours of work and the growth in contingent employment and alternative work arrangements, including telecommuting.

Changes in Job Tenure

Job tenure—how long people work with one employer—varies considerably by age and gender. So changes in average tenure for the entire workforce are less revealing than changes for particular age-sex cohorts.

Although job tenure has declined among workers aged 25 to 54, the trend is mostly confined to men. One analysis of median job tenure from 1963 to 1996 indicated that tenure is declining for men while it is increasing for women. For men 25 to 34, tenure declined slightly, from 3.0 years to 2.7 years, from 1981 to 1996. For men in older age groups, however, the decline was steeper–from 7.1 to 6.1 years for men 35 to 44 and from 11.1 to 10.1 for men 45 to 54. Male job tenure also declined from 1963 to 1981 in all three age groups. Tenure also decreased slightly for younger women, but grew from 4.1 years to 4.8 years for women 35 to 44 and from 6.1 to 7.0 years for women 45 to 54 (Mishel, Bernstein, and Schmitt, 1999).

Year-by-year analysis shows that declines among men have been fairly steady since the early 1980s. That is because of extensive layoffs and downsizing in blue-collar jobs and midlevel managers, which are predominantly male occupations. Increasing tenure for women can be at least partially explained by the increasing attachment of women to the labor market, especially as women are more likely to keep their jobs while having and raising children.
Further analysis also indicates that earnings are strongly associated with job tenure, with men with strong employer attachments earning an average of $57,000, men with a medium attachment earning $49,000, and men with a weak attachment earning $28,000 (Mishel, Bernstein, and Schmitt, 1999).

In the aggregate, there is some evidence of modest declines in job stability during the first half of the 1990's, with more tenured workers (9+ years) experiencing significant and large declines in job stability (Neumark, Polsky, and Hansen, 1999). However, workers with 0-2 years of tenure experienced increased job stability during this same period (Neumark, Polsky, and Hansen, 1999). Blacks have experienced the strongest declines in job stability, particularly among workers with longer job tenures (Neumark, Polsky, and Hansen, 1999).

Changes in Work Hours

As job tenure has grown more precarious for men and somewhat longer for women, the time spent at work has changed in two somewhat contradictory ways.

On the one hand, the average number of hours worked appears to be increasing. Average annual hours worked increased by 0.4% per year from 1979 to 1989, and by 0.3% per year from 1989 to 1996 (Mishel, Bernstein, and Schmitt, 1999). Employers stay flexible by increasing work hours rather than adding new hires, and workers put in more hours to compensate for stagnating or declining wages.

Even though total hours worked is increasing, part-time work is increasing as well. As shown in Table 1, part-time workers (fewer than thirty-five hours per week) increased

from 15.7% of the workforce in 1973 to 16.7% in 1998. Voluntary part-time employment, which accounts for more than three-fourths of the total, grew slowly in the 1970s and 1980s before declining in the 1990s. Involuntary part-time workers, which fluctuate even more with economic cycles, followed a similar pattern but increased even more in the current expansion.

How can total work hours and the number of part-time workers both be increasing? Apparently, average hours have increased for either full-time or part-time workers, or both. Since full-time workers still account for over 80% of the workforce, increases in their hours most likely account for most of the discrepancy. Another factor, however, is the increase in workers who hold more than two jobs. The number of workers holding multiple jobs increased from 1973 to 1997, growing from 5.1% to 6.3% of the workforce, but has been relatively steady throughout the 1990s (Mishel, Bernstein, and Schmitt, 1999).

These trends show employers are getting the *staffing flexibility* they want, but with a decline in job *security* for employees. Trends in contingent and alternative work arrangements tell more about these trends.

Table 1.1:
Part-time Workers as a Share of the Nonagricultural Workforce

	1973	1979	1989	1992	1998
All Part-time	15.7%	16.7%	17.2%	18.0%	16.7%
Voluntary Part-time	2.9%	3.6%	4.1%	5.4%	2.7%
Involuntary Part-time	12.8%	13.1%	13.1%	12.6%	14.0%

Source: Author's analysis of U.S. Bureau of Labor Statistics data

Contingent Jobs and Alternative Work Arrangements

Meanwhile, there has been an increase in contingent jobs and alternative work arrangements. *Contingent jobs* are "jobs that are structured to be short term or temporary" (Hipple, 1998). These include employees hired with short-term contracts, workers hired through temporary agencies, and sometimes workers who are employed by a contracting company.

Alternative work arrangement is a broader concept that includes anyone who is not a permanent wage and salary employee. As defined by the Bureau of Labor Statistics, this includes workers who are independent contractors, on-call workers, temporary help agency workers, workers sharing one full-time job with other part-time employees, and workers provided by contract firms (Cohany, 1998).

Comprehensive surveys conducted as part of the Current Population Survey in 1995 and 1997 provide good measures of the size and characteristics of workers in these two categories. Both groups are sizable and diverse.

The Bureau of Labor Statistics constructed three definitions of contingent workers based on reported past tenure and expected duration of their current job. The broadest definition includes all wage and salary workers who do not expect their employment to last, except for those who expect to leave for personal reasons. It also includes the self-employed and independent contractors who expect to be, and had been, in such arrangements for one year or less. Under this definition, there were 5.6 million contingent workers in 1997, representing 4.4% of the workforce (Hipple, 1998).

By comparison, workers in alternative work arrangements totaled 12.6 million, or 9.9% of the workforce (Cohany, 1998). It should be noted that hours of work are not relevant to the definition of either contingent work or alternative work arrangements, and that there are many part-time workers who are not included in either definition.

In general, contingent workers were younger and more likely to be African American or Hispanic than non-contingent workers. They were also far more likely to be part-time workers.

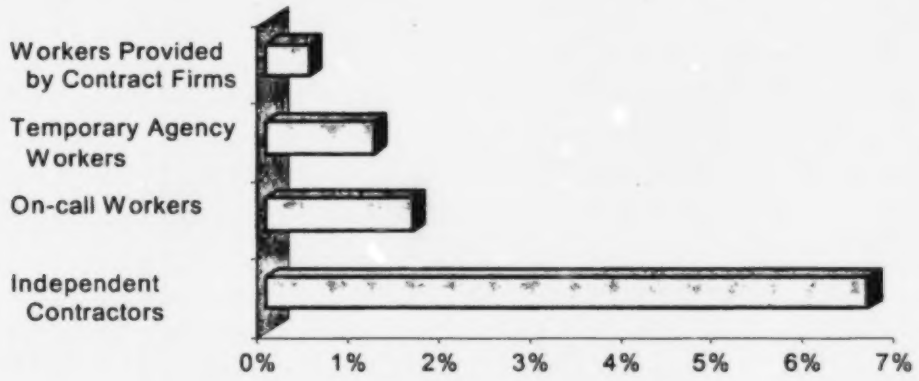
In 1997, 43% of contingent workers worked fewer than thirty-five hours per week. Contingent workers are most prevalent in the construction, temporary help, educational services, entertainment and recreation, and social service industries. By occupation, contingency rates were highest in professional services, administrative support services, and farming occupations. Rates were particularly high among post-secondary teachers, biological and life scientists, musicians and composers, library clerks, file clerks, general office clerks, data entry clerks, and teacher's aides.

Survey responses also indicated that most contingent workers are not in their current situation by choice. Nearly three-fourths would rather hold a non-contingent job. Earnings for full-time contingent workers were 80% of the average for full-time non-contingent workers, and contingent workers were far less likely to have health benefits or pensions (Hipple, 1998).

As shown in Figure 2, the largest category of workers with alternative employment arrangements is independent contractors. Two-thirds of independent contractors were men, and they were older, better educated, and better paid than traditional workers as well as workers in other categories with alternative arrangements. A full 84% preferred being independent contractors (88% of whom are self-employed) to traditional work arrangements.

By contrast, employees of temporary help agencies were more likely to be young, female, African American or Hispanic. Their earnings were substantially less than those of traditional workers, and only a third preferred their work arrangement to a traditional arrangement. On-call workers were concentrated in occupations such as substitute teachers, nurses, construction workers, and truck drivers. Their demographics were similar to those of traditional workers, and half preferred traditional jobs. Workers provided by contract firms represented the smallest number of nontraditional work arrangements. These workers earned more on average than workers with traditional jobs did, but women who worked for contract firms earned only 64% of men in this arrangement (Cohany, 1998).

Figure 1.3: Workers in Alternative Employment
Arrangements as a Share of the Workforce, 1997



Source: U.S. Bureau of Labor Statistics

Because there were no comparable surveys prior to 1995, there is no way to measure the growth of contingent workers or workers in nontraditional arrangements. However, there is one segment for which good time series data exists, and its growth has been proceeding at a torrid pace since the early 1970s. Workers employed by temporary help agencies expanded by more than 11% per year between 1972 and 1995 and now account for more than 2 million people although this is still a small percentage of the overall workforce.

While the growth in temporary help workers has been relatively constant since 1972, the composition of that growth has not. Since 1983, the most rapid growth has been among male-dominated blue-collar jobs. Blue-collar occupations grew from 18% of temporary workers in 1983 to 36% in 1993. Those employed in clerical and other administrative support jobs were 46% of temporary workers in 1983 but only 39% in 1993. By 1993, 40% of temporary workers were men (Segal and Sullivan, 1997).

The wages and benefits of temporary workers, relative to permanent workers, vary by occupation. The hourly wages of all temporary workers were 22% less than those of permanent workers in 1993. This differential ranged from 13% for white-collar workers to 29% for blue-collar workers. Much of this wage difference can be accounted for by differences in age, education, specific occupation, unionization, and other factors. After controlling for these factors, Segal and Sullivan found that wage differences were reduced to 3 to 5%. Differences in benefits are less ambiguous in nearly all occupations. Temporary workers are much less likely to have health benefits (Segal and Sullivan, 1997).

It should be noted that low union membership among temporary workers may statistically explain some of the difference. It is also likely to be a reason that employers use non-unionized temporary workers to help implement two-tier wage structures.

While the causes for the growth in temporary work are varied, four factors emerge:

- increased screening of potential candidates for permanent jobs;
- technological changes that are standardizing skill requirements in clerical and technical fields, as well as expanding the need for specialized technical skills;
- economies of scale in the temporary help industry;
- implementation of two-tier wage strategies, especially in manufacturing.

A 1997 employer survey found that 46% of establishments use temporary help agencies. The most commonly cited reason was to handle fluctuating workloads or

employee absences. However, 21% reported using temporary workers to screen for regular jobs (Houseman, 1997). This is not, however, the only way in which temporary agencies can function as intermediaries between workers and jobs. They may also provide the training and experience workers need to obtain more permanent employment.

The growth of the temporary employer industry has been partially attributed, by some researchers, to an increase in the costs of firing poor performers, for reasons ranging from an increasing likelihood of being sued to equal employment opportunity laws to effects on employee morale. The direct effects of technological change are hard to measure, but some case studies indicate an increase in the need for specialized services. There is also evidence that firms are hiring fewer temporary workers directly and increasing the use of agency temporary workers.

The evidence for two-tier wage structures is indirect but persuasive. The growth in blue-collar temporary workers began around the time that employers were beginning to abandon two-tier wage structures among their own employees because of the detrimental effect this was having on morale. Using lower-paid temporary workers rather than permanent workers seems to have achieved similar results, with less impact on the morale of a smaller number of permanent workers (Segal and Sullivan, 1997).

In addition to temporary workers, industry trends indicate a growth in many types of flexible staffing arrangements. A recent analysis of employment, output, and input data indicates a strong trend toward contracting out for services rather than directly hiring permanent employees. For example, the two industries that are most responsible for contract services have grown much faster than employment in all industries. Business services, which includes temporary help agencies, computer services, services to buildings, security services, and mailing and reproduction services, have grown from 2.0% of employment in 1972 to 6.9% of employment in 1996. Engineering and management services have grown from 2.1% of employment in 1988 (earliest year available) to 2.4% in 1996. Management consulting and public relations services account for 60% of the job growth in this industry (Clinton, 1997).

Analysis of industry input and output data confirm that nearly all industries have increased their use of these services. Financial services, and particularly banking, increased their consumption of both business and management services most intensively, relative to value added. Transportation, utilities, and government also more than doubled their use of business services, while the construction industry was the leader in increasing its share of value added going to engineering services (Clinton, 1997).

All these data sources indicate a wide and growing use of flexible staffing arrangements and contingent workers. Technology, global competition, changing regulatory environments, and other factors all create pressures to lower labor costs, keep inventories lean, and reduce product cycle time. Changes in the labor supply, such as the increasing share of women in the workforce, may also increase the number of workers who prefer flexible job structures. However, the high level of dissatisfaction with the quality of many types of nontraditional jobs, and the fact that men in prime work years are as much a part of the trend as women, indicate that labor supply variables appear to be relatively weak factors compared to changes in employer demands.

Telecommuting/Flexiplace

Telecommuting is a quickly growing alternative work arrangement with the potential for vastly changing the traditional workplace culture. Although as of early 1999, only about 8% of all workers telecommute, this figure represents several million employees (Heldrich Center for Workforce Development and Center for Survey Research and Analysis, 1999). Between 1992 and early 1993 the number of telecommuters rose by 1 million, from 6.6 million to 7.6 million workers (Niles, 1994). The availability of the technology to conduct work both at home and at the worksite, combined with advancements in technological speed, quality, and worker proficiency have made telecommuting an attractive option to many employees. Almost half of American workers (46%) report the opportunity to telecommute is important to them. However, the option is currently disproportionately available to workers in higher income brackets, with more education, and working in professional or technical occupations (Heldrich Center for Workforce Development and Center for Survey Research and Analysis, 1999).

The traditional workplace must undergo several shifts in attitude and policy for telecommuters to be fully integrated. For example, many employees (45%) believe advancement opportunities will be reduced if they choose to telecommute (Heldrich Center for Workforce Development and Center for Survey Research and Analysis, 1999). To prevent this perception from becoming a reality, corporate culture must shift its emphasis from a focus on how and when work is done to the results of the work effort (Gil Gordon Associates, 1999). In other words, the management and evaluation of employees will need to move from a day-to-day monitoring to an emphasis on results-oriented assessments. In addition, telecommuting and the flexibility in the hours of work that come with it requires new processes for the sharing of information between workers and for obtaining the information needed to conduct one's work.

The increasing number of computers in homes with Internet access, combined with the challenges employees and employers face when negotiating childcare and family responsibilities, provide sound rationale for continuing the expansion of telecommuting opportunities. As younger generations of workers move into the workplace, telecommuting and other flexible work arrangements are likely to become a greater priority (Gil Gordon Associates, 1999).

The Outlook for Work Processes and Organization

How will these trends play out in the future? Nobody knows for sure. But some trends have persisted for so long, and seem so driven by powerful forces, that they are likely to continue. These include:

- *Shorter job tenures* are likely to continue as the employer-employee relationship continues to weaken. An important trend to watch is whether women's job tenure continues to converge with men's.
- *Hours of work* are likely to depend considerably on trends in wages. If slow wage growth continues, then hours of work can be expected to continue climbing.
- *Flexible staffing and contingent work* can be expected to continue expanding as technological innovation and increasing international competition create pressures for these arrangements. A critical issue is whether the quality of these alternative jobs improves or deteriorates.

D. WAGES AND COMPENSATION TRENDS

For the past two decades, with the exception of a recent uptick, stagnant wage growth and increasing wage inequality have been major concerns for the U.S. labor market. Some believe that these will be permanent characteristics of the information age.

The past twenty-five years were preceded by a period of comparable length in which wages grew strongly and wage inequality was reduced. In addition, some economists see little increase in wage inequality since the late 1980s and an outlook that is more favorable to wage earners than were the conditions of the 1980s and 1990s.

Wage trends can look very different, depending on the unit of measurement, the time period being examined, the population group, and the measurement instrument. This has led to considerable disagreement among economists over the magnitude, or even the direction, of different trends. Even greater disagreement arises when causes are considered.

These differences are similar to those involving the nature and causes of changes in skill demands and work structures. This is not surprising, since wages are set by the same labor market forces that affect these other conditions.

Average Earnings and Compensation

Still, there is a broad consensus that wage growth, along with productivity growth, has been slow since the early 1970s, and that earnings inequality has widened over the same period (Mishkin, 1995). While recent statistics have shown that real earnings growth has accelerated in the strong economy, more research is needed to determine if these recent trends are likely to continue.

The slow growth of average earnings can be seen from the data in Tables 2 and 3. Both the Current Population Survey (CPS) and data from the National Income and Product Accounts (NIPA), (the latter developed by the Department of Commerce from a variety of sources), indicate a substantial slowing in hourly wages, annual earnings and total compensation since 1973. The CPS data show that real hourly wages, after growing by 2.9% per year from 1967 to 1973, grew by an average of only 0.1% from 1973 to 1996. The NIPA data show a longer time period for hourly wages and somewhat stronger growth after 1973. Still, wage growth slows from 2.4% annually from 1959 to 1973 to only 0.4% from 1973 to 1996.

Both series show slow or negative growth throughout the 1970s, 1980s, and 1990s. Annual earnings grew at a somewhat faster rate than hourly wages because of an increase in hours, and total compensation increases faster than wages because of stronger growth in benefits. However, both of these indicators grew at less than 1% per year from 1973 to 1996 (see Mishel, Bernstein, and Schmitt, 1999). While some argue that the Consumer Price Index has been slightly overstated during the past twenty years, the slow growth of wages cannot be totally explained as a problem of measurement.

Table 1.2:

Annual Change in Real Average Hourly and Annual Earnings, 1967-1996

	Hourly	Annual
1967-1973	2.9%	2.5%
1973-1979	-0.1%	0.1%
1979-1989	0.4%	0.9%
1989-1996	-0.2%	0.2%

Source: CPS data as reported in Mishel, Bernstein, and Schmitt

Table 1.3:
Annual Changes in Real Hourly Wages, Benefits and Total Compensation, 1959-1996

	Wages	Benefits	Total
1967-1973	2.4%	6.3%	2.8%
1973-1979	0.1%	4.9%	0.9%
1979-1989	0.5%	0.8%	0.6%
1989-1996	0.5%	0.2%	0.4%

Source: BEA NIPA data as reported in Mishel, Bernstein, and Schmitt

Earnings Inequality

With earnings growing so slowly, rising inequality translates into declining real incomes for those at the bottom, and sometimes even for those in the middle.

As noted earlier, there is some dispute over the full dimensions of rising inequality. The December 1997 issue of the *Monthly Labor Review* helped to decipher some of these trends with two articles from authors with different perspectives. Using two data sets from the Current Population Survey, analysis by Jared Bernstein and Lawrence Mishel supports the conventional wisdom that earnings inequality has continued in the 1990s (Bernstein and Mishel, 1997). Using data from a different Census Bureau survey, Robert I. Lerman concluded that there was virtually no change in earnings inequality between the mid-1980s and the mid 1990s (Lerman, 1997a).

A summary of their findings sets a useful framework for a discussion of the causes and outlook for earnings trends. Using both the Gini index (a comprehensive measure of income inequality) and comparisons of average earnings changes for different percentiles of the earnings distribution, Bernstein and Mishel concluded that earnings inequality, as measured by both hourly and weekly wages, has increased consistently since 1979. Inequality grew most rapidly in the early 1980s, flattened out in the late 1980s, and reaccelerated in the 1990s. Gini coefficients for the CPS Outgoing Rotation Group show a sharp increase from 1979 to 1985, very modest increases from 1985 to 1991, a large increase from 1991 to 1994, and a slight decline from 1994 to 1996. The dynamics of rising inequality shifted in the mid-1980s. Prior to around 1986, most of the increase was caused by a widening gap between low-income workers and middle-income workers. Since the mid-1980s, most of the increase has come from a wider gap between high-income workers and those in the middle. The wages of men and women have converged, but inequality measured among men and women separately has increased at a faster rate than among men and women combined.

While Bernstein and Mishel rely most heavily on the Outgoing Rotation Group series, Lerman's analysis emphasizes the Survey of Income and Program Participation (SIPP). Both articles compare results from the different data sets, and Lerman also uses the Gini index and percentile comparisons. His conclusions, however, detect a different pattern. SIPP data, which begin in 1983, show a rise in inequality from 1983 to 1986, but inequality then remains constant, even declining some between 1992 and 1995. Patterns in the March CPS data vary depending upon the method used to account for earnings in the upper percentiles that are beyond the scale of the survey.

By some calculations, patterns are similar to those of the SIPP data. The absence of change in the overall level of income inequality is not necessarily inconsistent with rising differentials by level of education. An increasing gap between college- and high-school-educated workers is countered by a shift in the distribution of hours towards workers with college degrees and narrowing wage differences between genders and racial groups.

The limitations of all of the surveys may make it impossible to resolve these differences entirely with analysis to date. However, this research, along with that of others, points to several points of consensus:

- Earnings inequality rose sharply in the early 1980s and was either flat or increasing at a more modest pace from the mid-1980s to the mid-1990s.

- The wage differential between workers with college degrees and workers with high school degrees or less has grown substantially, particularly in the 1980s.

- The gap between the earnings of women and men has narrowed over the last two decades.

There is some dispute over whether wage differentials between racial groups have widened or narrowed. For example, Mishel, Bernstein, and Schmitt found that the hourly wages of men declined for each major racial/ethnic group except Asians from 1989 to 1997. The decline was steepest for Hispanics and slightly steeper for blacks than whites. Among women, wages increased for whites and Asians but declined for blacks and Hispanics (Mishel, Bernstein, and Schmitt, 1999). However, Lerman argues that wage differentials by race and ethnicity have been declining, particularly when controlling for education (Lerman, 1997b).

If increasing earnings inequality is the conventional wisdom, then technology is usually blamed for it. Since technology is driving an increase in skill demands, the resulting increases in wage premiums for college graduates are presented as the main factor behind rising inequality.

The reality is more complicated, however. As discussed earlier, skill levels may not have increased much faster in the 1980s and the 1990s than they did in previous decades. In addition, other factors account for some of the specific shifts in earnings among different segments of the labor force.

In the early to mid-1980s, inequality appears to have resulted primarily from declining earnings by low-wage workers, particularly those in manufacturing. From the late 1980s on, earnings at the very bottom of the pay scale increased some, while those at the top increased substantially. The largest deterioration in average wages occurred for middle-income workers (Mishel, Bernstein, and Schmitt, 1999).

Technology would certainly appear to be a significant part of the inequality puzzle, considering general trends toward rising skill levels and case studies showing the impact on work processes in particular industries. It is also possible that a recent acceleration of earnings increases among high-skill workers results from a slow gestation of computer-induced changes in work organization. The effects of the business cycle also need to be weighed, as shifts in aggregate employment and unemployment levels affect lower-wage workers most.

However, an explanation that relies solely on technological causes would have to assume that a fundamental transformation took place in work processes between the two periods. In the earlier period, technology would have primarily eliminated low-skill jobs, while in the latter period it eliminated midlevel jobs while substantially increasing demand for higher-level skills. It is unlikely that changes in the work process would have shifted that dramatically and uniformly among a wide range of industries.

Other variables can explain a portion of this change. For example, international competition took a steep toll on manufacturing production jobs in the 1980s, particularly during the 1980–82 recession when the largest increases in earnings inequality appear to have occurred. When combined with the more aggressive anti–union practices that took hold following the 1981 air traffic controllers' strike, this factor can explain much of the decline in low-skill wages in the 1980s. Similarly, the early 1990s were characterized by a downsizing of midlevel managers, enabled by technology but driven by deregulation and increasing competition in the office and service sectors. Finally, increases in the minimum wage and the Earned Income Tax Credit (EITC) in the 1990s appear to have lifted earnings for the lowest-skilled workers. This is supported by analysis which shows that most of the earnings increase went to low-paid women, who are most affected by changes in the minimum wage (also see Howell, 1996; Ackerman et al., 1998; Mishel, Bernstein, and Schmitt, 1999).

The Outlook for Wages

Given the multitude of factors influencing wages, the shifting patterns of the last two decades, and the ambiguity over earnings inequality in the 1990s, the outlook for wages is particularly difficult to predict. But some conclusions can be drawn from the available evidence:

.. *International competition* will continue to put pressure on employers to restrain labor costs and thereby put downward pressure on wages.

.. *Productivity* levels will be the most important variable for determining whether average earnings will deteriorate or improve in the coming decades.

.. *Large differentials by education level* will continue, although it is possible that these could narrow somewhat if the supply of college-educated workers increases substantially and if employers adopt work processes that restrain demand for high-skill workers.

.. *Earnings for low-skill workers* are likely to deteriorate unless unemployment remains very low or public policy intervenes with wage supports, such as a higher minimum wage.

E. CONCLUSIONS AND IMPLICATIONS OF LABOR MARKET TRENDS FOR EMPLOYMENT AND TRAINING INTERVENTIONS

How closely will the labor market of the early twenty-first century resemble the labor market of the last two decades?

What will be the effect of the recent and prolonged economic growth on employer demand for skills, work structures and earnings trends?

Simply projecting past trends into the future is inadequate, particularly when these trends themselves are unclear. But it is clear that the economy is still absorbing a wide range of innovations in information technology, and that the international economy will become increasingly integrated. And we know that the labor force is becoming older and more racially diverse.

These factors make it all but certain that skill requirements and educational attainment will continue to rise, that work structures will become more varied and fluid, and that the well educated will have a sizable earnings advantage.

Beyond these broad conclusions, several different scenarios could unfold:

.. Technology and rising education levels could spur rapid increases in productivity, and slower labor force growth could keep unemployment at relatively low levels. Both of these could lift wages and possibly narrow the gap in earnings between lower-, middle-, and high-wage workers.

.. A sharp decline in international demand, changes in immigration, or a failure to translate innovations into improved productivity could usher in a new round of high unemployment, declining wages, or both.

New patterns of growth and decline will occur, and the impacts on different constituencies will vary. Just as "new media" and electronic commerce emerged as new centers of economic activity in the 1990s, other unforeseen products, services, and industries will emerge.

Perhaps different patterns of inequality will replace the concern with rising differentials between college- and non-college-educated workers. Education differentials could narrow, yet differences by race could increase and intergenerational mobility could be reduced if access to education becomes more bifurcated. Regional differences, which have been narrowing for decades, could conceivably grow if national regulatory structures lose their ability to steer the national economy.

The greatest certainty is that the individuals and institutions that can best adapt to changing circumstances will be most likely to prosper. Markets and work processes will change in unpredictable ways, and at a rapid pace. Therefore, lifelong learning and institutional flexibility will be central to strategies for workers, students, schools, and employment and training providers.

In an era when change is the only certainty, the nation must help all its people adapt to change. That imperative is the lasting lesson from the trends transforming our economy.

Rising skill requirements by employers, more varied and fluid work structures and the sizable earnings advantages of the well-educated will have major implications for job seekers and employers. Employment and training interventions that are designed to assist individuals who need employment (the supply of labor) and employers who need to hire employees (the demand for labor) must focus on helping job seekers and employers to adapt to these changes.

Rising Skill Requirements of Employers

The skill demands of employers have fundamental implications for employment and training interventions. As employers demand ever-higher skill levels from employers, individuals that do not have the skills necessary to compete will be left behind in the knowledge economy. Technology and computer technology in particular may be accelerating the demand for highly skilled workers. Information technology may be increasing the demand for cognitive skills, complex technical skills or both. In addition to demanding technical skills, employers will increasingly require flexible problem-solving abilities, interpersonal skills and basic literacy and numeracy skills from their employees.

Employment and training interventions must be structured to assist job seekers in obtaining these skills in order to become and remain employed. Interventions must be designed to impart flexible problem-solving skills and interpersonal skills to job seekers. In addition, training programs must stay abreast of the changing technology utilized in the workplace and be prepared to teach new technological skills to individuals. As skill demands continue to change and evolve, employment and training interventions must remain flexible and quick to adapt.

More Fluid and Varied Work Structures

Work structures are becoming more fluid and varied, as evidenced by changes in job tenure and the rise of contingent work arrangements. These new work structures have important implications for employment and training interventions. During the past 30 years, average job tenure has declined for older men. If this trend continues, older men may need specific types of services to assist them to remain employed and to move smoothly from one job to another. The rise of contingent work and alternative work arrangements has an effect on the way individuals find employment, the types of jobs available to job seekers and the types of skills demanded by employers. A better understanding of the role that intermediaries, including temporary agencies and community-based organizations, play in the labor market is needed in order to ensure that employment and training interventions can meet the needs of job seekers.

Earnings Advantages of the Well-Educated

Workers with college degrees continue to earn substantially more than workers with high school degrees. This gap has grown substantially, particularly in the 1980's. These shifts in earnings patterns appear to be the result of competitive and regulatory forces as well as rising skill demands of employers. Employment and training interventions can best respond to this change by identifying the skills that individuals need in order to compete in the knowledge economy and by identifying the most effective strategies to impart these skills. Both pre-employment and post-employment services are essential. Individuals need skills

to become employed but also need access to opportunities for lifelong learning that will allow them to upgrade their skills and to obtain higher paying jobs.

Employment and training interventions must be structured to assist job seekers in obtaining these skills in order to become and remain employed. Interventions must be designed to impart flexible-problem solving skills and interpersonal skills to job seekers. In addition, training programs must stay abreast of the changing technology utilized in the workplace and be prepared to teach new technological skills to individuals. As skill demands continue to change and evolve, employment and training interventions must remain flexible and quick to adapt.

POTENTIAL RESEARCH TOPICS / SUBJECT AREAS

1. Skills Requirements of Employers

Employment and training interventions must successfully identify the skills that individual job seekers need in order to become employed and then be structured to assist job seekers in obtaining these skills.

- Skills Needed By Employers In Particular Sectors And Industries
- Effect Of New Technologies, Including The Internet And E-Commerce, On The Skill Needs Of Employers

2. Changes in the Structure and Organization of Work

Work structures are becoming more fluid and varied, as evidence by changes in job tenure and the rise of contingent work arrangements. These new work structures have important implications for employment and training interventions.

Effect of Contingent Work on Hiring Practices

- How has contingent work effected the hiring practices of employers and the job search behavior of individuals?
- How can employment and training interventions adjust to the increase in contingent work to meet the needs of employees and individuals?
- What are the long-term earnings and employment patterns of individuals who receive employment and training services and are placed in jobs with temporary help agencies?

Role of Intermediaries in the Labor Market

- What role do intermediaries, including temporary agencies and community-based organizations, play in the labor market?
- What is the role of intermediaries in supplying employment and training services?
- Do intermediaries offer new approaches and techniques that can be adapted by the public-sector employment and training community?
- What are the implications of the significant labor market role of intermediaries for public employment and training programs?

3. Changes in Wages and Compensation

Workers with college degrees continue to earn substantially more than workers with high school degrees. This gap has grown substantially, particularly in the 1980's. These shifts in earnings patterns appear to be the result of competitive and regulatory forces as well as rising skill demands of employers.

Wage and Compensation Trends

- What are the recent trends in the receipt of benefits, including health insurance and retirement benefits?
- Why has the college/high school wage gap not grown in the 1990s?
- Why have the wages of new college graduates fallen in the 1990s (through 1996)?
- Why have wages at the bottom of the wage scale fared better than those in the middle during the last 10 years?
- Why has there been no acceleration in the wage growth of white-collar, college-educated workers?
- How have falling national unemployment rates changed the economic/labor market circumstances of workers in areas with higher unemployment rates unaffected by the recovery?

Implications of Wage and Compensation Trends for Employment and Training Interventions

- How should employment and training interventions respond to wage and compensation trends?
- To what extent can workforce development systems implement and institutionalize nontraditional or high-wage training and employment options, including technology skills, for women?

SECTION III.

CHANGING POLICIES FOR EMPLOYMENT AND TRAINING INTERVENTIONS: THE WORKFORCE INVESTMENT ACT OF 1998

SECTION III. CHANGING POLICIES FOR EMPLOYMENT AND TRAINING INTERVENTIONS: THE WORKFORCE INVESTMENT ACT OF 1998

The Workforce Investment Act (WIA) of 1998, which replaces the Job Training Partnership Act (JTPA) and amends the Wagner-Peyser Act, was signed into law on August 7, 1998 and will be implemented by states no later than July 1, 2000. WIA reforms federal employment and training programs and creates a new, comprehensive workforce investment system designed to meet the needs of both employer and job seeker customers.

WIA contains a number of significant changes, including increased state and local flexibility, new governance structures, universal access and streamlined services, and customer choice through Individual Training Accounts. WIA also emphasizes increased accountability and continuous improvement of the workforce investment system through performance management requirements.

A. WORKFORCE INVESTMENT BOARDS

Under WIA, local Workforce Investment Boards (WIBs), comprised of representatives of business, unions, education, community-based organizations and the public sector, are responsible for planning, policy development, and oversight of workforce development services in local Workforce Investment areas. A majority of WIB members must represent the private-sector and the chairperson of each WIB must be a business representative. Along with Governors and local elected officials, WIBs have a strong role in tailoring the new workforce investment system to meet local and regional needs.

B. COORDINATION OF SERVICES THROUGH ONE-STOP CENTERS

WIA requires that each WIB area be served by a One-Stop Center. The One-Stop system provides the foundation for the new workforce investment system by unifying numerous training, education and employment programs into a single, locally administered system. Under this system, delivery of employment and training services will be streamlined through co-location, coordination and integration of workforce development programs and activities at local One-Stop Centers, satellite centers, and also through electronic linkages among a wide range of partners. This design is intended to be more responsive to customer needs and ensures that individuals have access to information and services, regardless of where they initially enter the workforce investment system.

C. DELIVERY OF CORE, INTENSIVE AND TRAINING SERVICES THROUGH WIA (FOR ADULTS AND DISLOCATED WORKERS)

WIA requires that core services, such as job search assistance and information on employment opportunities be available to all adults and dislocated workers (universal service). Local Workforce Investment Boards must then set criteria for individuals to receive intensive services such as group and individual counseling and training services. Priority for adult training must be given to welfare recipients and other low-income individuals. Those individuals who receive training services will be issued Individual Training Accounts (ITAs) that are intended to allow for greater customer choice.

With ITAs, eligible adults and dislocated workers are provided with vouchers, allowing them to select from a state-compiled list of approved training providers and programs. This increased customer choice represents a departure from previous methods of delivering training services.

D. SERVICES FOR YOUTH

WIA provides employment and training services for youth through a funding stream that is separate from that for adults and dislocated workers. WIA combines year-round youth programs and summer youth programs. Local Youth Councils, as subcommittees of local Workforce Investment Boards, will determine the mix of services to be provided to low-income youth between the ages of 14 and 21 who lack basic literacy skills or otherwise need assistance to complete their education or to find a job. Despite wide latitude in the types of services to be provided, Youth Councils must target at least 30% of WIA youth funds for out-of-school youth. Additionally, young adults aged 18-24 can access services through the adult title of WIA, and when doing so do not have to meet income eligibility requirements.

Services provided to youth will include assessment of an individual's current skills and needs, creation of a strategy for meeting those needs, and provision of services to prepare youth for post-secondary education or employment. Services will include closely coordinated academic and occupational learning and strong connections to jobs and employers.

WIA also authorizes Youth Opportunity Grants of up $1.2 billion to be awarded competitively to service providers over five years in about 30 high poverty areas around the country to increase the employment prospects of youth who live in low-income communities. These grants, to be awarded by DOL, may be used to fund a wide variety of youth services, including leadership development, community service and recreational activities.

E. NEW MEASURES AND METHODS FOR PERFORMANCE MEASUREMENT

WIA creates a system of performance accountability that is designed to assess the effectiveness of employment and training programs on a regular basis. WIA requires that states set performance goals for the workforce development system. States must report the following outcomes to DOL: average wages at placement into employment, rate of retention in employment, skills attainment, and customer satisfaction. Unemployment Insurance wage records will be used as the primary source of performance information.

These goals for performance in years 1 through 3 of WIA implementation must be contained in each state's five-year Workforce Investment Plan to be submitted to DOL. Levels of performance must also be set for local WIB areas. Financial incentives and sanctions are designed to encourage states to meet or exceed their annual goals and to encourage the continuous improvement of programs. In addition, WIA requires that states develop a process for determining eligible providers of training services that utilizes past performance information.

Workforce Information Council

Section 309 of the Workforce Investment Act of 1998 establishes a national employment statistics system and a unique structure to guide the system by establishing the Workforce Information Council (WIC). The WIC is a joint Federal and State partnership that was given the task of formulating and articulating a vision of the workforce information system. The WIC will accomplish this through a five-year plan that includes annual reports to the Office of Management and Budget.

One of the goals of the five-year plan developed by the Workforce Information Council is to conduct research and development activities that continuously improve and create quality workforce information. The WIC recognizes that research and development is needed to improve the quality of the workforce information and to add critical new information sources. Research should focus on data collection methods, statistical procedures, and application of technology to reduces costs, increase timeliness, and improve quality. In addition, investments are needed in tools to increase the speed and efficiency and reduce the cost of labor market transactions.

The Research Plan will ensure that it coordinates and carries out the research objectives of the WIC plan through a review of the WIC plan. This Research Plan also attempts to add to the discussion of the research goals of the WIC plan.

F. OTHER SIGNIFICANT POLICY CHANGES, INCLUDING WELFARE TO WORK

The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) created a system of temporary financial support and time limits that require welfare recipients to leave cash assistance for work. In addition, PRWORA ended the federal welfare program as an entitlement program. The long-standing Aid to Families with Dependent Children (AFDC) provisions for low-income families were replaced with Temporary Assistance for Needy Families (TANF) block grants to states, who were then accorded considerable flexibility in designing and administering welfare-to-work and related programs. Despite this flexibility, all states now place a priority on moving recipients quickly into employment, either subsidized or unsubsidized, and decrease the emphasis on long-term training programs for these individuals.

The Welfare-to-Work (W-T-W) Grants Program was created by Congress in 1997 to provide additional funding for employment and training services for welfare recipients and to assist states to develop interventions to assist the "hardest to serve" welfare recipients to find employment. This program is administered by DOL.

WIA requires the participation of welfare-to-work programs in One-Stop Career Centers. As a result, states have the opportunity to create a unified welfare-to-work system for welfare recipients. In addition, welfare recipients will be eligible to receive services funded by WIA. As with all adults, welfare recipients will be referred to core services, including job search assistance, before being eligible for intensive or training services.

CURRENT RESEARCH FUNDED BY THE U.S. DEPARTMENT OF LABOR

Evaluation of WIA Implementation:
DOL is currently funding an evaluation of WIA implementation. The purpose of the Evaluation of WIA Implementation is to conduct a process evaluation of the implementation of the WIA of 1998. The study assesses the early experience of states implementing WIA, including those states that opt to implement before July 1, 2000. It also tracks and reports to a wide audience the progress that state and local governments are making in adopting and operationalizing key WIA principles and assists DOL to develop national and regional technical assistance and support for WIA implementation.

Evaluation of the Individual Training Account/Eligible Training Provider (ITA/ETP) Demonstration: DOL awarded thirteen grants under the ITA/ETP Demonstration to pilot test a limited range of approaches to implementing ITAs and ETP systems under the WIA. This demonstration will include the provision of extensive technical assistance and training to participating sites in a short-run effort to provide early operating models. The demonstration focuses on the development of administrative systems and structures, the engagement of vendors and other stakeholders in the planning process, and the necessary staff training and development to support the customer-focused approach inherent in the ITA concept.Evaluation of the Individual Training Account (ITA) Experiment: The ITA Experiment is designed to implement and test alternative ITA approaches to determine which ITA models work best and for which purposes. The objective of this experiment is to provide better information to State and local practitioners as they determine the roles of counselors in the management of customer choice in ITAs; plan the allocation of staff and training resources to best meet their objectives; and strive for the continuous improvement of services under WIA. The ITA Experiment will test different ITA models for adult workers to determine their impacts on participant outcomes. The ITA Experiment will be based on a classical experimental design, with random assignment of eligible individuals to the alternative models.

POTENTIAL RESEARCH TOPICS / SUBJECT AREAS

Coordination of Service

- *To what extent have satisfying identified customer needs been a guiding principle in the coordination of services among agencies?*
- *What are the most effective ways to integrate the various institutions involved in the new workforce development system?*
- *How can partnerships be created and political boundaries be bridged between the county and local level?*
- What are the most promising practices among state and local agency partnerships? What are the most critical obstacles to more effective partnerships?

Workforce Investment Boards

- How can decision making and governing structures be designed to ensure the effective input of all WIB members, including business, unions, education, community-based organizations and the public sector?
- What is the influence of State and local politics in the establishment of Workforce Investment Boards, the creation of One-Stop Centers and the design of employment and training programs?

One-Stop Career Centers

- How effective are One-Stop Centers at assisting individuals to find employment? What are the characteristics of the most successful One-Stop Centers?
- To what extent are One-Stop Centers able to provide services to employers? What are the most effective practices for providing services to employers?
- Are collaboratively operated One-Stops or competitively operated One-Stops more effective at assisting individuals to become employed?
- Are physically co-located One-Stops or electronically linked One-Stops more effective at assisting individuals to become employed?
- How have local partnerships been integrated into WIBs? How can competing agendas be avoided?
- To what extent are Vocational Rehabilitation agencies fully integrated into local One-Stop Centers? To what extent does the new workforce delivery system incorporate state and local mental health and developmental disability employment and training programs?

Capacity Building for Workforce Development Staff

→ What are the best practices of individuals that serve as counselors, instructors, managers, etc. in high quality employment and training programs?
→ What are the staff development needs of workforce development personnel?
→ What management practices contribute to effective performance by staff in the workforce development system?

Structure of Services

- How can career counselors and related staff best assist individuals to choose careers based on a full range of variables, including interests and aptitudes?
- How can gender stereotypic decisions be minimized or avoided?
- How can technology be used to improve the delivery of services?

Performance Management

→ What alternative additional methods, including early indicator measures or cost-benefit analysis, should be used to measure the performance of employment and training interventions?
→ What are the strengths and weaknesses of using Unemployment Insurance wage records to measure program outcomes and performance?

SECTION IV.A.

REVIEW OF RECENT PILOT, DEMONSTRATION, RESEARCH, AND EVALUATION INITIATIVES TO ASSIST IN THE IMPLEMENTATION AND IMPROVEMENT OF PROGRAMS UNDER THE WORKFORCE INVESTMENT ACT

PROGRAMS, PILOTS, AND DEMONSTRATIONS DESIGNED TO ASSIST EMPLOYERS

1. ASSISTING EMPLOYERS TO UPGRADE THE SKILLS OF EMPLOYEES

In order to compete in the global economy, employers need to employ individuals with flexible problem-solving, interpersonal and technical skills needed to successfully perform their jobs. Skilled employees can lead to increased productivity and can improve the competitiveness of the firm. A recent survey of employers found that both the credentials required by employers and the types of tasks employees are expected to perform are at high levels across all occupations, including blue-collar jobs and those which do not require a college education (Holzer, 1998a).

In order to have skilled employees, employers can hire individuals who already possess the skills that they will need to perform the job. All newly hired individuals bring skills to the job that they learned through the educational system, through the workforce development system or from previous employers.

In many cases, however, employers offer training to their employees to upgrade the level of their skills or to teach them the skills they will need in their job. This employer-provided training is the primary source of training for many adult workers.

Previous studies—see below—have found that firms and employees can benefit by employer-provided training. Many firms, however, continue to provide only a modest level of training to their employees. These barriers to firm-provided training include fear of losing trained employees to other companies, lack of resources to train employees and lack of information on the benefits of training

Many states have instituted programs that award direct grants to firms to assist them in training their employees. These grants, often referred to as customized training grants, are used to fund training programs developed to meet the employers' specific needs. In some cases, funds from the JTPA program are used to help employers provide training to newly hired employees. Employers are often required to offer full-time employment to individuals who successfully complete the training. WIA allows states and local WIBs to fund customized training activities.

Prevalence and Effectiveness of Employer-Provided Training

- The majority of American firms with more than 50 employees provide formal training to their employees. Nearly 71% of firms surveyed by the Bureau of Labor Statistics (BLS) reported that they provide formal training to their employees. However, the incidence of training varies greatly by firm size and industry (Frazis, Herz, and Horrigan, 1995).

.. In a 1994 survey of employers, 57% of firms with more than 20 employees reported an increase in formal training since 1991 (Lynch and Black, 1998).

Large- and medium-size firms are more likely to provide formal training to their employees than are small firms (Frazis, Herz, and Horrigan, 1995; Hollenbeck and Anderson, 1992; Lynch and Black, 1998). Two-thirds of all workers have their first work experience at small firms. As a result, the lower incidence of formal training has an effect on a disproportionate number of workers (Simon, 1997). Firms that have recently restructured, organizations that require technical skills from their employees, and companies that pay higher wages are also more likely to provide training to their workforce (Hollenbeck and Anderson, 1992). In addition, there is a higher incidence of formal training in non-manufacturing industries (Lynch and Black, 1998).

.. The vast majority of employees receive some type of employer-provided training on a regular basis (Bureau of Labor Statistics, 1996). While 84% of workers receive formal training from their employers, 96% of workers receive informal training. Informal training included any type of instruction in the performance of a job and included a wide variety of activities.

Women are less likely to receive training from an employer than are men (Bureau of Labor Statistics, 1996; Knoke and Ishio, 1998). In addition, nonwhite workers are less likely to receive training from an employer than are white workers (Bureau of Labor Statistics, 1996). Workers with more education are also more likely to receive workplace training (Lynch and Black, 1998). Employers tend to increase the amount of formal training offered to employees as their employees' tenure at the firm increases (Loewenstein and Spletzer, 1997).

.. Employer-provided training has been found to increase worker productivity and to increase employee earnings (Pindus and Isbell, 1997; Lynch, 1992; Holzer, 1990; Bartel, 1995; Bloom and Lafleur, 1999).

.. Workplace education programs (WEPs), which provide basic skills training and promote positive workplace attitudes, have benefits in addition to productivity and earnings gains, including improved quality of work, reduced production waste, increased employee retention, and improved labor-management relations (Bloom and Lafleur, 1999).

The effect of employer-provided training to individual workers on their earnings received from subsequent employers is less understood. In one study, training was not found to have a significant effect on wages earned from subsequent employers (Lynch, 1992).

Financial Incentives to Encourage the Hiring of Targeted Populations

State-subsidized customized training has experienced a large per capita spending increase over the last decade, as states have tried to assist employers to remain competitive and to encourage firms to locate new facilities in the state (Duscha and Graves, 1999). These state programs usually provide training to incumbent workers.

Customized training programs funded at the state level have been found to provide some benefits to firms, but there is limited evidence that programs provide benefits to employees (Holzer et al., 1993). Training funded through customized training grants in Michigan was found to have a positive and sustained effect on the quality of goods produced at the firm (Holzer et al., 1993). However, the wages of employees did not increase as a result of the customized training grant. One study of customized training grants in California and Illinois concluded that the grants funded training activities that would have been funded without the grants (Osterman, 1992). More recent research in California has found that customized training yielded greater employment stability and higher earnings for trainees. Additionally, the return on investment was $2.50 for every $1.00 California spent (Moore, Blake, and Phillips, 1995).

Federal programs through JTPA tend to fund training for firms that hire new employees and individuals from certain target groups (e.g. welfare recipients). These Federal programs can provide benefits to firms and to individuals who receive training (Isbell et al., 1997). A study of nine exemplary firms that had received customized training funds concluded that most individuals completed the program and obtained the skills necessary for full-time employment. The study also concluded that a substantial majority of individuals who completed training were hired in full-time jobs that paid wages similar to or higher than those of other JTPA participants.

POTENTIAL RESEARCH TOPICS / SUBJECT AREAS

Barriers to Firm-Provided Training

- What are firms' most significant barriers to providing more training to their employees?

Efforts to Encourage Firms to Upgrade the Skills of Their Employees

- To what extent do workers take advantage of Section 127 of the Social Security Code ? (Section 127 of the Internal Revenue Code allows workers to receive up to $5,280 a year in reimbursements or direct payments from their employers for non-job related educational expenses on a tax-free basis).

- Are customized training grants (grants made to companies to assist them to upgrade the skills of their employees) an effective strategy at increasing the skills of individuals and improving the competitiveness of firms?

- Do customized training subsidies allow firms to provide more training to their employees than would have been provided without such assistance?

- What is the long-term effect of customized training on the employment and wages of individuals who receive training?
- To what extent do customized training grants impact the training practices and productivity of firms receiving such grants? Do related effects endure over time?
- How can local WIBs integrate customized training with other workforce development services?
- How can business development/modernization programs be more effectively linked with training programs?

2. FINANCIAL INCENTIVES TO ENCOURAGE THE HIRING OF TARGETED POPULATIONS

The federal government and many state governments have offered financial incentives to employers in an effort to increase their hiring and training of targeted populations. These incentives often take the form of tax credits that permit qualified employers to deduct from their income tax a portion of their tax liability when they hire those in targeted groups or train employees in more general skills.

The federal government currently offers the Work Opportunity Tax Credit (WOTC) to employers that hire individuals from any of eight targeted groups and the Welfare-to-Work Tax Credit to employers that hire former welfare recipients. Many states offer similar tax credit programs for employers that hire residents of targeted communities or of targeted groups.

Employers are often reluctant to change their hiring policies in response to tax credits (Bishop and Kang, 1991; Bishop and Montgomery, 1993). A study of employers' responses to the Targeted Jobs Tax Credit, a federal tax credit in effect during the 1980s and early 1990s, showed that the program helped less than 10% of the targeted population obtain jobs (Bishop and Kang, 1991).

The majority of individuals who were hired using the Target Jobs Tax Credit would have been hired without the tax credit (Bishop and Kang, 1991; Bishop and Montgomery, 1993). However, the tax credit may have modest effects on the employment rates of disadvantaged young adults (Katz, 1996).

In general, financial incentives have been found to be most effective when combined with training and job development. Without these other interventions, targeted financial incentives may stigmatize groups and hamper employment efforts (Katz, 1996).

Employers are not well informed about tax credits that are available to them (Regenstein, Meyer, and Dickemper Hicks, 1998). Most employers contacted in a national survey reported that existing tax credits had little influence on their hiring decisions, in large part because they were unaware of the programs' existence.

CURRENT RESEARCH FUNDED BY THE U.S. DEPARTMENT OF LABOR

A Study of the Work Opportunity Tax Credit:
DOL is funding a study to provide information on how employers use the Work Opportunity Tax Credit and their recommendations for program improvements.

POTENTIAL RESEARCH TOPICS / SUBJECT AREAS

Financial Incentives, Including the Welfare-to-Work Tax Credit

- How effective has the Welfare-to-Work Tax Credit been at encouraging employers to hire individuals in targeted populations? To what extent do these tax credits affect employers' hiring decisions?
- Do the Work Opportunity Tax Credit and the Welfare-to-Work Tax Credit encourage employers to create new jobs or to hire individuals in targeted populations for existing jobs? Do these tax credits change behavior or are they windfalls?
- What are the obstacles to greater employer utilization of tax credits for targeted groups?
- Which industries are most likely to use financial incentives, such as the Work Opportunity Tax Credit or the Welfare-to-Work Tax Credit?

Strategies for Linking Other Employment and Training Interventions with Financial Incentives for the Hiring of Targeted Population

- → How can the Work Opportunity Tax Credit and the Welfare-to-Work Tax Credit be used in conjunction with other services to assist individuals to remain employed?
- → To what extent are employers utilizing tax credit programs in conjunction with incumbent worker training programs?

3. ASSESSING SKILL NEEDS AND SETTING SKILL STANDARDS

The Occupational Information Network (O*NET™) provides access to comprehensive, up-to-date information on skill requirements and standards for various occupations. O*NET™, which replaces the Dictionary of Occupational Titles, is a database that operates on a Windows-based format. It contains information for employers of all sizes and across all sectors of the economy. Some of the features of O*NET™ 98 include: descriptive profiles and data on over 1,100 occupations; capability to locate occupations through skill requirements or key words; electronic linkages that crosswalk O*NET™ occupational titles to eight other classification systems (such as DOT, MOS, OPM); and Bureau of Labor Statistics data on employment levels, occupational outlooks and wages. Although O*NET™ currently contains information developed by job analysts, future data will come directly from employers and workers, with expert researchers collecting and classifying the information to ensure consistency and accuracy.

SECTION IV.B.

REVIEW OF RECENT PILOT, DEMONSTRATION, RESEARCH, AND EVALUATION INITIATIVES TO ASSIST IN THE IMPLEMENTATION AND IMPROVEMENT OF PROGRAMS UNDER THE WORKFORCE INVESTMENT ACT:

PROGRAMS, PILOTS AND DEMONSTRATIONS DESIGNED TO ASSIST ADULT JOB SEEKERS/WORKERS

1. HELPING INDIVIDUALS LOCATE OR CREATE EMPLOYMENT OPPORTUNITIES

Many of the programs of DOL/ETA are designed to give individuals the tools to find employment. Welfare-to-work programs help welfare recipients make a successful transition to permanent employment. Reemployment services help prepare unemployed individuals and dislocated workers for a return to the workforce. Self-employment programs provide the unemployed with the training and technical assistance necessary to start a productive business.

WIA places an emphasis on moving individuals into employment through easily accessed core services, such as job search and placement assistance and labor market information. These core services will be available to all adults through One-Stop Career Centers. Only individuals who are unable to find and retain a job through the core services will be eligible to receive intensive employment and training services, such as group and individual counseling and short-term prevocational services.

To assist job seekers to identify the skills and training required for different jobs, DOL has created the O*NET™ database. This database describes and catalogues occupations and their skill requirements and replaces the Dictionary of Occupation Titles (DOT). Additionally, O*NET™ can be linked to regional and local databases to provide accurate occupational projections.

The One-Stop Career Center System brings together an array of employment and training programs into an integrated service delivery system for jobseekers and employers. This service delivery system is supported by an information delivery infrastructure that is the America's Labor Market Information System (ALMIS).

ALMIS is developing, primarily through the efforts of consortia of states, an interactive infrastructure of national application systems, i.e., America's Job Bank (AJB), America's Talent Bank (ATB), America's Training Network (ATN), and America's Career InfoNet (ACIN), that are logically connected by technical standards and a common language, i.e., O*NET coding. These national systems are being supported by various additional efforts undertaken by consortia leading to common state application development and standardized approaches to labor market information (LMI).

America's Job Bank (AJB), a partnership between DOL/ETA and the state-operated public Employment Services, is a self-directed job search tool. Through electronic linkages to state Employment Service job listings, job seekers have access to a large pool of current job openings from across the country. AJB may be accessed via the Internet, or through computer systems in public libraries,

college and universities, high schools, community-based organizations and other public locations.

CURRENT RESEARCH FUNDED BY THE U.S. DEPARTMENT OF LABOR

Evaluation of Labor Exchange Services in a One-Stop Environment: DOL/ETA is currently funding an evaluation of labor exchange services in a One-Stop environment. This evaluation includes an analysis of traditional Wagner-Peyser Act mediated labor exchange (i.e., staff-assisted help), an examination of electronic labor exchange services accessed through America's Labor Market Information System (ALMIS), and an evaluation of private placement firm services when provided as part of the public labor exchange services. This comprehensive evaluation looks at the efficiency and effectiveness of these labor exchange services.

POTENTIAL RESEARCH TOPICS / SUBJECT AREAS

Labor Exchange

- How effective or sufficient is the Wagner-Peyser Act labor exchange program?
- How does the Wagner-Peyser Act labor exchange program vary by state?

Trends in Job Search

- Which job search techniques are used most often by individuals looking for employment (and by individuals of different demographic groups and individuals with different skill levels)?
- Which job search techniques are most successful at helping individuals to find employment? Does the effectiveness of techniques vary by individual demographics or skill levels?
- What will be the effect of the Internet on the way in which individuals locate employment and the way in which employees located qualified workers? Will employers utilize Internet websites, including America's Talent Bank, when searching for employees? Will job seekers utilize Internet websites, including America's Job Bank and private job listing services, to locate employment?

Job Search Interventions

- What are the demographic characteristics of individuals and employers that use America's Job Bank/America's Talent Bank?

- → To what extent do individuals obtain employment as a result of using America's Job Bank and America's Talent Bank?
- → Do America's Job Bank and America's Talent Bank complement or substitute for local labor exchange services? If they serve as substitutes, are they more effective at assisting individuals to obtain employment than services delivered exclusively at the local level?

1.a. Interventions Designed to Help Individuals Move from Welfare to Work

Welfare recipients often lack the skills and education demanded in the job market and have limited work experience, exposure, and training in the soft skills needed for teamwork and job performance. In addition, many parents leaving welfare for work and training need support services, including child care, transportation aid, substance abuse treatment, mental health services, and transitional housing.

The passage of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) ended the federal welfare program as an entitlement program and replaced it with a system of financial support and time limits that require people to leave cash assistance for work. The long-standing Aid to Families with Dependent Children (AFDC) provisions for low-income families were replaced with Temporary Assistance for Needy Families (TANF) block grants to states. States were then accorded considerable flexibility in designing and administering programs for welfare recipients.

To provide additional funding for employment and training services for welfare recipients, the Congress created the Welfare-to-Work (W-t-W) Grants Program in 1997. The W-t-W Grants Program was designed to assist states to develop interventions to assist the "hardest to serve" welfare recipients to find employment. This program is administered by DOL.

WIA requires the participation of welfare-to-work programs in One-Stop Career Centers, while TANF agencies are optional partners. As a result, states have the opportunity to create a unified welfare-to-work system for welfare recipients. In addition, welfare recipients will be eligible to receive services funded by WIA. As with all adults, welfare recipients will be referred to core services, including job search assistance, before being eligible for intensive or training services.

The review below focuses on published studies of welfare recipients' experiences in welfare-to-work programs. While many significant broad-scale studies of PRWORA are under way, none have yet been published. Therefore, relevant studies from the AFDC era are included. Studies of state programs, initiated during AFDC, provide some insight into the effectiveness of training and

employment programs in getting welfare recipients into work and out of poverty. In addition, many states tested, under waivers, policies such as time limits that were later incorporated into their TANF programs. For additional insights into the connections between government interventions and improved employment prospects, studies of how welfare recipients have fared in JTPA programs have also been included.

Employment and Training Programs

The impact of employment programs on caseload declines and earnings among welfare populations varies by level of dependency, as defined by prior work experience and welfare history. Recipients with the highest level of dependency (limited work experience and a long history of welfare recipiency) experienced increases in employment through employment and training programs, but did not experience increased earnings. For the moderately dependent population, employment programs resulted in increased employment and earnings (Friedlander, 1993).

- AFDC enrollment increased under voluntary employment and training programs, since those desiring a training opportunity had to apply for services and such training programs were independent of AFDC enrollment. Mandatory programs with heavy time commitments reduced entry into AFDC and increased the exit rate as those unwilling to participate in the program were removed from AFDC or left voluntarily (Moffitt, 1996).

- Industries in which welfare recipients have had the most long-term employment success are health care, educational services, finance/insurance/real estate industries, and durable-good manufacturing. By contrast, temporary help jobs, laborers, and cashier positions yielded the least promising long-term employment prospects for welfare recipients (Bartik, 1997).

- Subsidized employment has led to significant increases in earnings and significant reductions in AFDC and food stamp program participation (Bell and Orr, 1994). The National Supported Work Demonstration, which provided subsidized employment and support services to single parent, long-term welfare recipients, increased post-program earnings by more than 20% during the first 2 years, and by over $400 per year in follow-up years 6-8 (Gueron and Pauly, 1991; Couch, 1992)

- Public service employment has been shown to increase future earnings, especially for adult women and participants receiving more intensive work experience. However, this intervention has shown little impact on welfare benefit receipt (Ellwood and Welty, 1999).

Rapid Job Placement Programs

Studies examining the impact of programs that emphasize rapid job entry have identified their strengths and weaknesses. One study found that successful programs combined rapid job placement with tutoring in work-related skills. Other research has varied in findings for rapid placement programs, ranging from more positive longer-term impacts of up to 5 years (Gueron and Pauly, 1991) or only small outcome differences in a 2-year period between rapid job placement and more intensive training programs (Hamilton et al., 1997).

- Placing recipients in jobs without providing skills training was found to lead to short-term earnings gains that last only a year or two (Strawn, 1998; Friedlander and Burtless, 1995) This is primarily because participants usually did not obtain higher wage employment (Strawn, 1998; Gueron and Pauly, 1991).

- Programs prioritizing job search over other activities increase participants' earnings. This is largely as a result of reduced initial joblessness, rather than higher wages or longer employment durations (Friedlander and Burtless, 1995).

- The Los Angeles Jobs First-GAIN rapid job entry program (Greater Avenues for Independence) produced large gains in earnings and employment rates. Due to a large earnings disregard designed to assist individuals to make a smooth transition from welfare to work, the program was responsible for only moderate reductions in the AFDC/TANF caseload (Riccio, Friedlander, and Freedman, 1994).

- The San Diego County Saturation Work Initiative Model (SWIM) yielded a reduction in welfare payments for both single-parent and two-parent AFDC recipients, but participants received no personal gain from the program because their increased earnings were offset by welfare reductions (Friedlander and Hamilton, 1996).

- Common features behind successful rapid job placement programs included an extensive coordination of client services, an emphasis on case management, a shift in focus from occupational to work-readiness training, and the provision of such supportive services as child care and transportation (Westat, Inc., 1997).

- Shorter-term skills training has been proposed as an alternative model under welfare reform, enabling access to better jobs (Strawn, 1999). The most successful programs offer a close integration of skills training with workplace and employer involvement (Murphy and Johnson, 1998).

Employer Demand for Welfare Recipients

The employment prospects of welfare recipients rest in part on the demands of employers. Several studies have assessed employer attitudes about the hiring of welfare recipients.

- In a tight labor market, employer demand is relatively high, but is likely to diminish under different economic conditions, such as a recession (Holzer, 1998b, 1998c). The highest demand is in retail occupations, while the lowest demand is in manufacturing (Holzer, 1998b).

- The provision by employers of support services and workplace amenities for welfare recipients is also likely influenced by the tightness of the labor market (Holzer, 1998b).

- Employers who have hired former welfare recipients report being satisfied and willing to hire welfare recipients again in the future (Regenstein, Meyer and Dickemper Hicks, 1998; Mills and Kazis, 1999).

Financial Incentives

Financial incentives to "make work pay" include lowering the benefit reduction rate for those working, increasing the base welfare grant, and increasing the earnings disregard. These types of incentives have been shown to increase earnings and employment rates for welfare recipients, bringing some out of poverty (Berrey, 1998; Blank, Card, and Robins, 1999).

- The Minnesota Family Investment Program, and the Florida Family Transition Program provide financial incentives which encourage the receipt of public assistance in combination with wages from working. The result has been positive impacts on earnings and employment rates, and in the case of Minnesota, a greater likelihood of participants moving above the poverty level (Knox et al., 1998; Bloom et al., 1998). Similar effects were found for the Milwaukee New Hope Program, which provided earnings supplements, health insurance, and child care subsidies (Bos et al., 1999).

The Earned Income Tax Credit has been greatly expanded throughout this decade and is now the largest income supplement program.

- Increases in the Earned Income Tax Credit in recent years have been shown to account for large employment increases by single mothers (Blank, Card, and Robins, 1999; Meyer and Rosenbaum).

Barriers to Employment

Barriers to employment, such as inadequate childcare, lack of basic work skills and experience, mental health problems, substance abuse, and transportation or housing limitations, stand in the way of full-time steady work for many welfare recipients. Multiple barriers are faced by a substantial number of recipients, and such barriers have been shown to be significant predictors of employment status (Danziger et al., 1999; Pavetti et al., 1997).

Mental health problems and substance abuse severely limit recipients' employability.

- As many as 28% of adults who were receiving AFDC in 1994 were addicted to drugs or alcohol, a rate much higher than the general population (National Center on Addiction and Substance Abuse, 1994; Johnson and Meckstroth, 1998).

- State programs providing substance abuse treatment for welfare recipients have found positive employment outcomes (Young, 1996, in Johnson and Meckstroth, 1998).

- At least one-fifth of welfare recipients experience some type of psychiatric disorder (Jayakody, Danziger, and Pollack, 1998).

- Low-income mothers' probability of employment increases with reduced child care costs (Anderson and Levine, 1999; Berger and Black, 1992).

Childcare for welfare recipients is funded at the federal level under the Child Care and Development Fund, a block grant. However, substantial needs for specialized child care services remain, including care during non-standard hours, care for sick children, and care for children with special needs (U.S. General Accounting Office, 1995a; Johnson and Meckstroth, 1998).

Teenage Mothers

Teenage mothers are more likely than non-teenage mothers to receive welfare and have higher lifetime welfare costs (Eliason Kisker, Maynard, Rangarajan, and Boller, 1998). Their children are also at greater risk of educational, health, and financial difficulties. Several demonstrations have been implemented specifically targeting teenage parents with education, training, and support services.

The Learning Earning and Parenting (LEAP) program in Ohio targeted pregnant teens and teen parents on welfare with sanctions and bonuses to their welfare checks designed to increase high school enrollment and attendance.

.. Both in-school teens and dropouts achieved significant increases in school enrollment and attendance. Those still enrolled in school upon program entry also increased GED receipt (Long et al., 1997).

.. Employment rates of those initially enrolled in school were increased during the 4-year follow-up period, while earnings of this group were also higher, in the initial two follow-up years (Long et al., 1997).

The New Chance Demonstration was a national program which operated from 1989-1992 in 16 sites and targeted out-of-school youth and young mothers on welfare who had first given birth as teenagers. The program provided educational and occupational training, work experience, job placement assistance, health and family planning classes and services, parenting workshops, "life skills" classes, and childcare.

.. Within 3-1/2 years after random assignment, program participants were more likely to have attained a GED or earned college credits (Quint, Bos, and Polit, 1997).

.. The program did not impact participants' reading scores, likelihood of earning a trade license or certificate, sexual activity/pregnancy patterns, employment rates, earnings, or welfare receipt, relative to the control group at the 3-1/2 year follow-up point (Quint, Bos, and Polit, 1997).

The Teenage Parent Demonstration operated in 3 sites in Illinois and New Jersey from 1987-1991. Teenage mothers on welfare were required to participate in education, training, or employment-related activities to receive their maximum welfare grant.

.. Two years after program intake, participants had increased levels of participation in school, job training, and employment (Maynard, Nicholson, and Rangarajan, 1993).

.. Three to four years of post-program follow-up found a loss of the early positive impacts on employment-related activities, when mothers no longer had program requirements or the accompanying support services (Eliason Kisker, Rangarajan, and Boller, 1998).

Non-Custodial Fathers

The welfare-to-work grants program identifies non-custodial parents who face employment barriers as a target group for employment services, with the intention of increasing child support payments and reducing the numbers of children in poverty. Additionally, economically disadvantaged non-custodial

parents are eligible for programs and services authorized under WIA, although no special provisions are earmarked for this group.

Low-income non-custodial fathers are disproportionately minorities and have low education levels, limited work experience, and few job skills (Martinson, 1998). When faced with employment discrimination or legal problems, their employment barriers are further compounded.

The Parent's Fair Share (PFS) demonstration, an ongoing initiative of the Manpower Demonstration Research Corporation funded by foundations and the federal government, provided employment and training support, peer support, mediation, and enhanced child support enforcement for non-custodial fathers in 7 sites.

- Both the Parent's Fair Share intake process and participation in the program resulted in significantly higher rates of child support payment, but neither had an impact on the average payment amount (Doolittle et al., 1998).

- No site produced a significant increase in earnings, but 2 sites reported an 11 percentage point increase in the proportion of participants employed at some point during 6 quarters of follow-up (Doolittle et al., 1998).

Employment Retention and Advancement

Given the time limits and work requirements under PRWORA, coupled with the strong demand for labor in the current economy, retention and advancement have become increasingly important. Although declining welfare rolls may suggest that many welfare recipients have been successful in obtaining employment, it is often a challenge for such individuals to retain and advance in jobs. Among the barriers faced by low-skilled workers include stagnant wages, non-traditional hours, few fringe benefits, and little opportunity for advancement. Environmental barriers, such as lack of access to transportation or child-care, or personal issues, such as substance abuse or domestic violence, may also negatively affect retention and advancement prospects.

The Post-Employment Services Demonstration (PESD), conducted in 4 sites from 1996-1998, was designed to address job retention and advancement. It provided counseling from case managers, financial assistance with work-related expenses, assistance accessing benefits, and job search assistance in the event of an unemployment spell.

- Two years after intake, the program was found to have no impact on employment, earnings, income, or self-sufficiency. Small reductions in welfare receipt were observed in 2 sites (Rangarajan and Novak, 1999).

Status of Former Recipients

The implementation of PRWORA has led to several studies examining the employment and economic status of those who exit the welfare system. Much of this research has used data from the period before TANF replaced AFDC.

- In general, the economic status of former AFDC recipients was largely influenced by regional economic conditions, such as the state unemployment rate (Vartanian and Gleason, 1999).

- Women who were the primary wage earners fared worse economically than those with additional earners in the household, as well as those who do not get jobs within the first 3 months after exiting welfare (Vartanian and Gleason, 1999).

- While two-thirds of those leaving welfare worked, two-thirds also continued receiving some type of public assistance, such as Medicaid or Food Stamps (Cancian et al., 1999b).

- Substantial numbers of those leaving AFDC (40-60%) remained poor as long as one to two years after exiting (Cancian et al., 1999b; Vartanian and Gleason, 1999).

- Between one-third and one-half of those who exited AFDC remained below the poverty level, for as long as 12-18 months after exit (Cancian et al., 1999a; Vartanian and Gleason, 1999).

- A Wisconsin study found that 30% of those who left AFDC returned at some point during the following 15 months. Two-thirds of those returning did so within 4 months (Cancian et al., 1999a).

Early research findings since the implementation of PRWORA are similar to those of the post-AFDC studies: women and children have not been able to lift themselves out of poverty. Nationally, between 1995-1997 the poorest fifth of single-mother families experienced a decline in income, despite the strong economy (Primus et al., 1999).

- States report that most adults obtain employment for at least part of the time after they move off welfare, although their average yearly earnings are below or near the poverty level. Additionally, between 19%-30% of those who exit welfare eventually return to the rolls (U.S. General Accounting Office, 1999; Holcomb et al., 1998; Loprest, 1999).

.. Those who left welfare are similar to other low-income families who have not been on welfare, with respect to hourly wages, earnings, and job characteristics, all of which are at the low end of the labor market (Loprest, 1999).

CURRENT RESEARCH FUNDED BY THE U.S. DEPARTMENT OF LABOR

Adapting Model to Bring Welfare Recipients into Employment Mainstream:
DOL is currently funding a study to test the potential of providing reemployment services and training to welfare recipients under the federal dislocated worker programs. The study will include a feasibility demonstration in New York City through the youth program, Support Training Results In Valuable Employees (STRIVE). Adult welfare recipients will be enrolled in STRIVE employment and training services for transition to mainstream employment.

The Welfare Paired Parent Demonstration:
DOL is conducting a demonstration intended to shape productive welfare reform policies by focusing on increasing the employment and earnings of young two parent families who are economically disadvantaged, and where at least one partner has been dependent on welfare. DOL is also supporting an evaluation component being performed by a research team at the University of Chicago.

SELECTED RESEARCH CURRENTLY FUNDED OR RECENTLY COMPLETED BY THE U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Evaluation of Welfare-to-Work Strategies:

The U. S. Department of Health and Human Services in conjunction with the U.S. Department of Education is conducting a national evaluation of Welfare-to-Work strategies. This study will measure the economic and non-economic outcomes of different Job Opportunities and Basic Skills program (JOBS) approaches for welfare recipients and their children. The child outcomes being measured include: cognitive development and academic achievement; safety and health; problem behavior and emotional well being; and social development.

The evaluation primarily tests the effectiveness of two different welfare-to-work strategies. The "labor force attachment approach" encourages rapid transition into the labor force, whereas the "human capital development approach" follows a longer-term strategy of investing in recipients' basic education, with the aim of increasing their qualifications for higher wage jobs.

National Evaluation of the Welfare-to-Work Grants Program:
The U.S. Department of Health and Human Services is currently funding a national evaluation of the Welfare-to-Work grants. The evaluation includes three main components: (1) a descriptive overview of all programs and activities, (2) experimental design studies in 8-10 sites to assess program impact and cost-effectiveness, (3) site visits to study the implementation process.

This evaluation also includes a process evaluation of the Indian and Native Alaskan Welfare-to-Work Grants Program.

The Impacts of Employment on AFDC Recipients in Wisconsin:
The U. S. Department of Health and Human Services is funding a project to obtain early results on the economic and employment outcomes of Wisconsin women who exit AFDC. Wisconsin is the focus of the study because over the past ten years it has experienced a rapid decline in AFDC caseloads.

The Impact of Welfare Reform on the Economic and Health Status of Immigrants, their Communities and the Organizations which Serve Them:
The U. S. Department of Health and Human Services, along with the Health Care Financing Administration, the Immigration and Naturalization Service, and the U.S. Department of Agriculture are funding this study to describe the status of immigrants with regard to health, employment, and participation in programs administered by public and private agencies.

Analyzing the Employment and Wage Patterns of Welfare Recipients:
The U. S. Department of Health and Human Services is currently funding research which uses data from the National Longitudinal Study of Youth to describe the employment and wage patterns of welfare recipients.

The Role of Intermediaries in Welfare to Work: The U.S. Department of Health and Human Services has recently completed research that describes the characteristics of intermediary organizations that are involved in welfare-to-work efforts. This study also identifies the challenges faced by these intermediaries and identifies successful strategies. The study was completed by Mathematica Policy Research.

Monitoring the Impact of Welfare Reform on American Indian Families with Children:
The U.S. Department of Health and Human Services is currently funding research to examine the impact of welfare reform on American Indians living on reservations in Arizona.

Welfare Outcome Grants That Support State-Conducted Research
In FY 1998 and FY1999, the office of the assistant secretary for planning and evaluation (ASPE) Awarded Approximately $4.65 Million in grants to states and counties to study employment and other welfare related outcomes for individuals and families who leave the TANF program, individuals and families entering the TANF Caseload, and TANF applicants and potential TANF applicants. ASPE anticipates awarding additional grants in FY 2000.

Employment Retention

Employment Retention and Career Advancement Evaluation:
The U.S. Department of Health and Human Services is currently working with thirteen States to design an evaluation of this demonstration. Technical Assistance is provided by Lewin and Associates, and Manpower Demonstration Research Corporation has been selected to run and evaluate the pilots. Demonstration sites will be selected in the Spring of 2000. USDOL is contributing funds for a process analysis of the role of One-Stops in the demonstration. The demonstration is interested in sites with welfare and One-Stop agencies that are working together.

Evaluation of Community-Based Job Retention Programs:
The U.S. Department of Health and Human Services is currently funding an implementation analysis of job-retention and post-employment services provided by community-based neighborhood service organizations. The project will also include state-funded job retention programs.

Administration and Delivery of Services

Supporting State Efforts to Link Administrative Data Systems for the Purpose of Studying the Effects of Welfare Reform on Other State and Federal Public Assistance Programs:
The U. S. Department of Health and Human Services has recently completed an examination of a grant program which provides financial assistance to link administrative data from low-income assistance programs. This project will enable an analysis of the collateral impacts PRWORA has on recipients and on other state and federal assistance programs.

Process Evaluation of Welfare-to-Work:
The U.S. Department of Health and Human Services is currently conducting a process evaluation of Welfare-to-Work programs at thirteen sites around the nation. Funding and specification of HHS to evaluate this program is in Welfare-to-Work legislation. Mathematica Policy Research has been selected to conduct this evaluation.

Study of Ancillary Services:
The U. S. Department of Health and Human Services has recently completed a study that compiles and interprets research on ancillary services. This research identifies knowledge gaps and unmet service needs, assesses their potential impact, and describes best practices for incorporating ancillary services into a long-term welfare strategy.

SELECTED RESEARCH FUNDED BY THE U.S. DEPARTMENT OF EDUCATION

Special Analyses of the California GAIN (Greater Avenues for Independence) Data:
A research project currently funded by the U. S. Department of Education's Office of Planning and Evaluation Services uses data which have been previously collected for participants in GAIN to determine the effects of adult education services on labor market outcomes and General Equivalency Diploma (GED) receipt, and to determine the relationship between length of participation in adult education and educational achievement.

Descriptive Review of Adult Education Services for Welfare Clients:
The U. S. Department of Education's Office of Planning and Evaluation Services is currently funding a project which examines the adult education services currently available to and used by welfare recipients.

Issues in Welfare Reform—Jobs Evaluation and Adult Education Study:
This current research is funded by the U. S. Department of Education's Office of Planning and Evaluation Services as a supplement to the Department of Health and Human Services' JOBS evaluation. It includes literacy and math achievement testing, and an implementation and process study of adult education providers.

POTENTIAL RESEARCH TOPICS / SUBJECT AREAS

Long-Term Impact of Employment and Training Services for Welfare Recipients

- What are the long-term employment outcomes for TANF recipients, as compared to the working poor?
- Are the long-term employment outcomes for TANF recipients better in states that integrate TANF into their general workforce investment system? Are the costs of program provision different?
- How will employment outcomes of former welfare recipients be affected by an economic downturn?
- What factors (e.g. family income, previous education, initial attendance and performance, and other socioeconomic variables) are associated with an individual's likelihood to complete a welfare-to-work job training program?
- To what extent do welfare-to-work competitive grants affect the employment and earnings of TANF recipients, including those with disabilities? What are the best practices resulting from these grant projects?
- What are the impacts of such financial incentives as reemployment bonuses, wage supplements, and retention bonuses, on job retention?
- Which factors most contribute to labor market attachment for welfare recipients (e.g. time limits, transitional child care benefits, transitional medical care benefits, transportation alternatives, macroeconomic conditions)?
- What are the long-term employment outcomes for TANF participants that are placed in jobs with temporary service agencies?

Interventions for the "Hardest to Serve" Welfare Recipients

- To what extent are specialized and supportive services available to the hardest to serve?
- What are the most effective strategies for combating such barriers to employment as mental illness, domestic violence, substance abuse, physical disability, and homelessness?

Assessment Tools

- How are assessment tools at employment/social service center used to improve the referral process and the availability of services to jobseekers?
- What types of assessment tools are most effective at identifying the employment and training needs of the hardest to serve population?
- Are frontline workers utilizing the assessment tools that have been shown to be effective in the allocation of supportive services? Are these assessment tools being used properly?

Job Retention Services to Assist Welfare Recipients to Remain Employed

- → Which post-employment services are most effective in helping disadvantaged adults to remain employed and upgrade their skills?
- → How can sectoral training strategies be used to create career ladders for welfare recipients and other disadvantaged individuals?
- → How can transitional employment be used in conjunction with other services to assist welfare recipients to obtain higher wages and permanent employment?

Interventions for Individuals with Special Needs, Including Disabled Individuals and Non-Custodial Fathers

- → What are the most effective ways to integrate employment and training programs for non-custodial fathers?
- → How can training and employment programs best address the needs of disabled TANF recipients?
- → In what ways has welfare reform affected disadvantaged individuals living in rural areas?

Role of Intermediaries in Assisting Welfare Recipients

- → What types of intermediary organizations have been successful in improving the employment and training opportunities of welfare recipients? Which techniques are most successful?

Efforts to Link Welfare-to-Work Programs with Other Employment and Training Interventions

- → What is the impact of the welfare-to-work programs on the utilization of the Unemployment Insurance system?
- → To what extent does collaboration exist between various state and local agencies in the implementation of Welfare-to-Work systems?
- → How can UI better serve former welfare recipients?

1.b. Reemployment Services and Job Search Assistance for Unemployed Individuals

Individuals with job experience who become unemployed must not only adjust to a significant loss of earnings but may also need to learn or relearn the steps necessary to find employment. While the Unemployment Insurance (UI) system provides temporary income support to unemployed workers who are currently looking for employment, most individuals receive no job search assistance from the federal government.

Individuals who lose their jobs with little chance that they will return to their previous employers are eligible to receive dislocated worker services funded by the federal government through the Economic Dislocation and Workers Adjustment Assistance (EDWAA) program. WIA retains dislocated workers as a distinct target population, but requires that dislocated workers first receive core services, such as job search assistance, before being eligible to receive intensive or training services.

Job Search Assistance for Unemployed Individuals

A number of demonstration projects have been conducted to determine if job search assistance can help Unemployment Insurance claimants find employment.

- In the New Jersey demonstration project, job search assistance reduced the amount of time profiled workers received Unemployment Insurance benefits by .47 weeks, or about half a week (Corson and Haimson, 1996).

Requiring claimants to attend a job search workshop at the beginning of their eligibility for Unemployment Insurance has been found to reduce the amount of time that individuals receive benefits by about half a week (Johnson and Klepinger, 1991; Klepinger et al., 1997). When applied to large numbers of Unemployment Insurance claimants, these reductions can lead to substantial savings for the Unemployment Insurance program.

The reasons that job search workshops have an effect on UI benefits are less clear. While some individuals may benefit from the job search skills learned at the workshop, many chose to stop collecting UI benefits before they attended the workshop (Klepinger et al., 1997). The increased inconvenience of the mandatory job search workshop might have been enough to induce these individuals either to return to work or to drop out of the labor force.

In the mid-1980s, DOL funded the New Jersey Unemployment Insurance Reemployment Demonstration Project. Based on the results of this demonstration, Congress in 1993 amended the Social Security Act to require all states to develop Worker Profiling and Reemployment Services (WPRS) Systems.

The early UI reemployment demonstration projects and an evaluation of the worker profiling and reemployment services systems in states that implemented them early found that worker profiling and reemployment service programs have been successful in accelerating reemployment and reducing the amount of time individuals receive Unemployment Insurance benefits (Corson et al., 1989; Anderson et al., 1991; Dickinson, Kreutzer, and Decker, 1997; Dickinson, Kreutzer, and Decker, 1999).

The WPRS Evaluations found the following:

- In two of the three WPRS Evaluation states for which impact data were available, Kentucky and New Jersey, reemployment services reduced the amount of time jobless workers received Unemployment Insurance benefits by half a week (Dickinson, Kreutzer, and Decker, 1997). In the third state, Delaware, reemployment services did not have a significant effect on UI benefits (probably due to the small sample size).

- Reemployment services for profiled workers seemed to reduce the receipt of UI benefits of those individuals most in risk of exhausting their UI benefits and for those individuals who received additional services (Dickinson, Kreutzer, and Decker, 1999).

The effect of worker profiling and reemployment services on employment and earnings is less certain:

- In the WPRS Evaluation, reemployment services increased earnings and employment for profiled workers in only one of three early implementation states from which valid data was available (Dickinson, Kreutzer, and Decker, 1997).

Reemployment services significantly increased employment and earnings of profiled and referred workers in one of the five early implementation states (Dickinson, Kreutzer, and Decker, 1997). In New Jersey, the worker profiling and reemployment services system led to a 1% increase in the employment rate two quarters after individuals filed for Unemployment Insurance benefits. The worker profiling and reemployment services system also led to an increase in earnings of $190 in the first quarter after filing for UI benefits and an increase in earnings of $225 in the second quarter.

Reemployment services for profiled and referred workers reduce the amount that individuals receive in Unemployment Insurance benefits and provide cost savings to the government (Corson and Haimson, 1996).

Advanced Notification of Business Closings

The Worker Adjustment and Retraining Notification Act (WARN) requires that individuals who are employed by firms with more than one hundred employees be notified at least sixty days in advance of plant closings and mass layoffs. This advanced notification gives individuals time to search for new employment before they lose their jobs. A 1990 evaluation of WARN concluded that advance notice of layoffs helps individuals make a successful transition from one employer to another (Ruhm, 1990). However, WARN only applies to employers

with more than one-hundred employees and as a result has no effect on many dislocated workers.

Conversion in the Defense Industry

In the 1990s, DOL designed and implemented projects to address worker dislocation in the defense industry. The core approaches included dislocation aversion strategies, community planning projects, and worker mobility projects. Dislocation aversion strategies helped firms make the transition from defense to related commercial production (Visher et al., 1997). Little quantifiable evidence exists, however.

The worker mobility projects funded under the Defense Conversion Demonstrations projects were not successful in placing dislocated defense workers in new jobs (Visher et al., 1997). Among the reasons cited for this outcome are regional labor markets with limited job opportunities, lack of enrollment in some programs, and inadequate training provided to participants.

CURRENT RESEARCH FUNDED BY THE U.S. DEPARTMENT OF LABOR

Public/Private Outplacement Models:

DOL is currently funding a study to identify effective public/private partnerships that help dislocated workers find jobs. The study will be conducted by the Association of Career Management Consulting Firms International (AOFIC).

Reemployment Services for Individuals Identified Through Worker Profiling:

In order to target reemployment services to those individuals who are most in need of them, historical data is used to develop statistical models (worker profiling models) to identify individuals who are most likely to remain unemployed for long periods of time. Reemployment services are then targeted to these individuals.

WRPS Significant Improvement Demonstrations:

DOL is currently funding a study to identify best practices for improving reemployment services administered to unemployed individuals through state worker profiling and reemployment service systems.

POTENTIAL RESEARCH TOPICS / SUBJECT AREAS

Strategies to Assist Unemployed Individuals

- What is the most effective strategy for preventing individuals from becoming unemployed?
- Can short-time compensation be used more effectively in cases of temporary dislocations?
- What is the long-term impact of job search assistance on the employment and earnings of unemployed individuals?
- How effective have state efforts been to coordinate Worker Adjustment and Retraining Notification Act notices and rapid response services?

Retention Services for Unemployed Individuals

- What specific services and strategies may be used to assist formerly unemployed individuals to retain jobs and advance in them?

Expanding the Use of Worker Profiling to Other Groups

- Can profiling-based strategies be adapted to support front-line workers in targeting services to a broad population of job seekers under WIA?
- Is worker profiling an effective strategy for targeting reemployment services to other populations, including welfare recipients and youth?
- How effective is worker profiling used for employment training?

1.c. Self-Employment Assistance/Micro-Enterprise Development

Some individuals are well suited to starting a business as a path to meaningful employment. Successful new businesses not only create opportunities for their owners but may also generate jobs and income in the community. Although the percentage of workers who are self-employed in both agricultural and nonagricultural businesses has declined dramatically since the 1950s, (largely as a result of the demise of small farming businesses), 10.2% of all U.S. workers were self-employed in 1990 (Manson and Picot, 1999).

During the late 1980s and early 1990s, DOL sponsored several demonstration projects that used self-employment assistance and training to promote rapid reemployment. In addition, the Unemployment Insurance Self-Employment Demonstrations provided business development training to new Unemployment Insurance claimants who were permanently laid off and likely to exhaust benefits. Participants in the demonstration in Massachusetts continued to receive biweekly Unemployment Insurance payments during training. In the demonstration in the state of Washington, participants received training, Unemployment Insurance benefits and additional lump-sum payments after completing different milestones related to business startup. These programs were rigorously designed and implemented using random participant selection and large-scale evaluation. Separately, the Economic Dislocation and Worker Adjustment Act (EDWAA) job creation demonstrations program awarded six grants to community development corporations to help dislocated workers start businesses.

A number of studies that reviewed both of these demonstrations found that self-employment programs can help some unemployed individuals and dislocated workers become reemployed (Benus et al., 1995; Drury, Walsh, and Strong, 1994). Analysis of the Unemployment Insurance Self-Employment Demonstrations found a correlation between participation and increased employment:

- Studies found that individuals who participated in self-employment assistance are significantly more likely to enter self-employment than those who do not receive such assistance (Benus et al., 1995).

- Self-employment assistance can reduce the duration of initial receipt of Unemployment Insurance benefits but does not necessarily lead to cost savings for the government (Benus et al., 1995). However, as a result of the lump-sum paid to participants in Washington State, the program was found to have increased the total amount paid in Unemployment Insurance benefits to participants in that state. In Massachusetts, self-employment allowances, paid

out as periodic (biweekly) payments, reduced the amount individuals received in Unemployment Insurance benefits.

- The effect of self-employment training on total earnings is positive (Benus et al., 1995). The Washington study found that self-employment assistance had a significant impact on self-employment earnings, but not on wage and salary earnings, and the Massachusetts study found that self-employment assistance increased wage and salary earnings and self-employment earnings, resulting in a significant positive impact on total earnings, and positive net benefits to participants, government, and society as a whole. The Massachusetts study was the basis for Federal Self-Employment Assistance (SEA) legislation. Further, the Report to Congress on State (Vroman, 1998) self-employment assistance programs found positive outcomes for participants both in terms of business starts and wage and salary employment.

CURRENT RESEARCH FUNDED BY THE U.S. DEPARTMENT OF LABOR

Microenterprise Grants and Evaluation:
DOL is continuing to fund awards in five states to develop effective business training and technical assistance to owners or potential owners of microenterprises. DOL is also conducting an evaluation of the microenterprise grant program.

Cost-Benefit Analysis of Self-Employment Assistance:
DOL has recently begun a study designed to measure the benefits and costs of State self-employment assistance programs.

POTENTIAL RESEARCH TOPICS / SUBJECT AREAS

Additional Services Needed By Those Receiving Self-Employment Assistance

- → What services, in addition to training and technical assistance, do individuals need to become and remain self-employed?
- → What are the impacts of linking financial assistance (loans) with technical assistance for those receiving self-employment assistance? How do these outcomes differ from the outcomes achieved by those receiving only financial assistance or those receiving only technical assistance?

Use of Worker Profiling to Identify Those Most Likely to Benefit from Self-Employment Assistance

- What are the impacts of profiling on assistining individuals accomplish succeful self-employment?
- Which dislocated workers or unemployed individuals would most benefit from self-employment training and technical assistance? Is worker profiling being properly used to identify individuals who would most benefit from self-employment assistance?

Self-Employment Assistance for Disadvantaged Workers

- Can self-employment assistance/micro-enterprise development programs be effective strategies for other populations, such as disadvantaged individuals?

1.d. Place-Based Strategies Designed to Assist Residents in Particular Communities

Individuals live in sharply defined communities that can enhance or limit their opportunities, achievements and quality of life. Due to physical isolation, residents of rural and inner-city communities often lack ready access to jobs or the informal networks that link people to jobs. The effects of racial and ethnic discrimination, low levels of education, and a lack of job skills and knowledge of the world of work may also prevent residents of these communities from joining the mainstream of economic opportunity.

Place-based strategies attempt to address such location-specific barriers to employment by changing features of the communities at large, as well as providing tools for individual change. The Empowerment Zones/Enterprise Communities (EZ/EC) initiative, administered by the U.S. Department of Housing and Urban Development, is a place-based initiative that provides federal aid and tax incentives to the neediest urban and rural areas with the goal of creating self-sustaining, long-term economic, physical and social development.

Other noteworthy place-based strategies include Jobs-Plus and Neighborhood Jobs Initiative. The Jobs-Plus demonstration, funded by the U.S. Department of Housing and Urban Development in conjunction with the U.S. Department of Health and Human Services and DOL, provides a concentrated package of employment and training programs, social services, and economic incentives designed to transform the targeted public housing developments from "low work/high welfare" communities into "high work/low welfare" communities.

The Neighborhood Jobs Initiative, partly funded by the U.S. Department of Housing and Urban Development, is an employment saturation project aimed at revitalizing distressed urban neighborhoods. The initiative aims to substantially

increase employment through the provision of work supports, including financial and non-financial work incentives; state-of-the-art pre-employment and skills training, job placement, retention and career progression services; community-building activities; and access to capital for neighborhood entrepreneurs.

The effects of place-based strategies on the employment and earnings of community residents are not known, as no comprehensive evaluations have been completed. However, a preliminary implementation study of the Annie E. Casey Foundation's Jobs Initiative identified the following barriers to job access, retention and advancement:

- Many inner-city residents are disconnected from social and informational networks based in the world of work (Annie E. Casey Foundation, 1999).

- A lack of transportation resources makes it difficult for inner-city residents to seek jobs outside their local neighborhoods (Annie E. Casey Foundation, 1999).

CURRENT RESEARCH

Empowerment Zones/Enterprise Communities (EZ/EC):
The Department of Housing and Urban Development is responsible for administering and evaluating the EZ/EC program in urban areas. A five-year assessment of the interim impacts of the program will be conducted.

Jobs Initiative:
The Annie E. Casey Foundation is currently funding an eight-year, six-site demonstration designed to identify new ways to improve job prospects of Americans living in low-income communities. The Jobs Initiative provides funding to help low-income residents in designated inner-city neighborhoods to find jobs with family-supporting wages.

Evaluation of the Jobs-Plus Demonstration:
The Department of Housing and Urban Development, with the Manpower Demonstration Research Corporation (MDRC) as the demonstration manager and evaluator, began this demonstration that will examine the implementation, impacts (effects), costs, and cost-effectiveness of Jobs-Plus. The research will "describe in detail the kinds of employment and training services, financial incentives, and community supports for work that the sites implemented and—importantly why they chose different approaches (because of underlying theories, special opportunities and circumstances or other reasons)" (Riccio, 1999). Jobs-Plus was authorized by

Congress as part of the Moving to Work demonstration program in the April 1996 HUD Appropriations bill. The demonstration began in 1997 and will run until 2003.

The Future @ Work:
DOL has funded, through its Welfare-to-Work grants program, a two-year technical assistance initiative to help large urban communities design and implement effective strategies for welfare recipients to obtain family supporting jobs. This demonstration is providing assistance to 10 urban sites. Lessons learned will be shared with other communities throughout the country.

2. ASSISTING INDIVIDUALS UPGRADE SKILLS TO OBTAIN EMPLOYMENT OR REMAIN EMPLOYED

A primary goal of the programs of DOL/ETA is to help individuals acquire the skills they need to obtain employment or remain employed.

Under WIA, training services may be provided to individuals who are unable to obtain or retain employment after having first received core or intensive services. Training services under WIA are to be delivered through Individual Training Accounts (ITAs), wherein individuals are provided with vouchers and are able to select from a list of eligible providers with a few exceptions, particularly on-the-job training and customized training. Authorized training includes occupational skills training, on-the-job training, entrepreneurial training, skill upgrading, job readiness training, and adult education and literacy activities. In cases where adult funds are low, priority must be given to recipients of public assistance and other low-income individuals.

Under Title II-A of JTPA—which will be replaced by WIA on July 1, 2000—disadvantaged adults are eligible for federally funded employment and training services. This program is designed to increase the employability of low-income adults and to assist job ready individuals to find and retain employment. Among the activities funded under JTPA Title II-A include: skills and services assessments; development of employment plans; vocational counseling; literacy and basic skills training; occupational skills training (classroom or on-the-job); job search assistance; job placement and support services.

The skills needed by employers may vary considerable from one industry to another. As a result, the National Skills Standards Board has been working since 1994 to identify skill standards for specific industries. These standards will help job seekers to determine the skills that they need to become employed in particular industries. In addition, the standards will assist providers of training services to

design training services that meet the skill needs of employers in specific industries.

2.a. Workplace Skills Training for Disadvantaged Individuals

Economically disadvantaged adults often require skills and educational training to facilitate their integration into the workforce. Many have low cognitive skills and little experience in the workforce. The assistance offered through programs such as JTPA ranges from occupational/vocational training to job search assistance and remedial and basic educational training. Numerous studies have evaluated the success of JTPA and similar programs in attempts to refine and improve current programs and to plan future training that is both successful and cost effective.

WIA allows disadvantaged individuals who are unable to obtain or retain employment after having received core and intensive services to receive training services.

Several findings regarding the impacts of JTPA training have emerged consistently across numerous studies.

- Prior to enrollment in training programs, participants have been found to experience a decline in employment and wages, to have poor labor force experience, and to exhibit a dependence on public assistance (Westat, 1989).

- Significant increases in monthly earnings have been found for those in the training group when compared with a control group, with greater effects found for those who received on-the-job training, job search assistance, or technical/occupational training (Bloom et al., 1992; Bloom et al., 1997; Thompson, 1998).

- Remedial education generally has little or no impact on earnings or employment rates (Bloom et al., 1992; Bloom et al., 1997).

- Disadvantaged adult women participants have shorter periods of unemployment following training than do other participants (Eberwein, Ham, and LaLonde, 1997).

Other research has examined the factors related to employment outcomes for program participants.

- Being unemployed for fifteen weeks or more prior to JTPA enrollment has a negative impact on the likelihood of being employed upon termination of a

training program. Receiving training from a current employer through JTPA has a positive impact on employment (Finn and Willoughby, 1996).

.. Studies of federal training programs for disadvantaged individuals, including the Manpower Development and Training Act, the Comprehensive Employment and Training Act, and National Supported Work Demonstration, found that disadvantaged adult women benefited from training services, whereas youth and men exhibited positive impacts only rarely (LaLonde, 1995; Couch, 1992).

.. Job-specific training programs improve the males' employment rate and increase female participants' wages (Hollenbeck and Anderson, 1993).

Research points to the importance of high literacy levels in success in the workplace.

.. Literacy is an important determinant of a worker's experience in the labor market. Literacy skills are positively related to employment outcomes such as hourly wages and number of hours worked (Gold and Packer, 1990; Organization for Economic Cooperation and Development, 1995).

.. The GAIN program that includes a mandatory basic education component for all those identified as having low skill levels increased the likelihood that group members would obtain a GED. Those entering the program with the highest skill levels were more likely to pass the GED examination after receiving training (Friedlander, 1996).

.. The Even Start program, funded by the U.S. Department of Education, provides family-centered literacy training for adults and children. It has been found to increase children's school-readiness test scores and adult basic education test scores (St. Pierre et al., 1998).

.. Literacy education was found likely to yield gains in employment and earnings and produced a positive influence on participants' continued education and GED acquisition. Additional personal benefits included improvements in participants' self-image and the perception that their personal goals were being achieved (Beder, 1999).

CURRENT RESEARCH FUNDED BY THE U.S. DEPARTMENT OF EDUCATION

"What Works" Evaluation for Adult ABE Students:
The U. S. Department of Education's Office of Planning and Evaluation Services is currently funding research to determine the most effective models for low-literate learner programs, and to test

their effectiveness in various sites using an experimental design. The most effective models will be pilot tested in various sites, with a national study to follow to confirm effectiveness.

Using Technology to Improve Instruction and Administration—Crossroads Café Distance Learning Project:
An evaluation of the Crossroads Café ESL instructional video series is being conducted, with funding by the U. S. Department of Education's Office of Planning and Evaluation Services, to describe the implementation process of the video series as it is used to augment classroom ESL instruction.

Evaluation of Effective Adult Basic Education Programs and Practices:
The U.S. Department of Education is currently funding a study to identify and validate the program components that are effective for low-literate learners.

POTENTIAL RESEARCH TOPICS / SUBJECT AREAS

Changes in Workforce Investment System

→ What are the effects of the changes in the workforce investment system (use of ITAs, addition of core services) on employment and training outcomes? What is the most effective combination of services?

Training for Employed Individuals

→ What are the most appropriate and effective training strategies for individuals who are currently working?

Effective Training Strategies

→ In what ways can new technologies improve skills training?
→ What is the most effective way to teach workforce readiness skills to adults, including those with limited formal education and work experience?
→ How can approaches and techniques used in private sector training (such as performance consulting, knowledge management, and emotional intelligence) be applied to public training programs?

→ How can training curricula incorporate the skills most needed by employers? Are sectoral training strategies effective at increasing the long-term employment and earnings of individuals?

Assessment Tools

→ What types of assessment tools are used by employers to determine the skill levels and proficiencies of potential employees? Which assessment tools are used by the employment and training community?

Credentials and Proficiency Certifications

→ How are employers looking at credentials in their hiring decisions? What value do employers place on different credentials? To what extent are credentials rather than competence emphasized by employers? Are credentials used primarily for screening purposes?

2.b. Retraining Programs for Dislocated Workers

In 1995, 1996, and 1997, 3.6 million workers who had been employed for at least three years were permanently laid-off from their jobs (Bureau of Labor Statistics, 1998). These dislocated workers lost their jobs because of layoffs or plant closings and had little chance of returning to their former jobs. Although these individuals often had significant job experience, they faced a variety of obstacles in getting back to work. Many dislocated workers who were employed in declining industries do not have the skills needed in other industries or occupations. Others have not upgraded their skills in many years but must do so in order to find a new job.

The effects of displacement on individuals' earnings and employment are dramatic and persistent. Using data from the Panel Study of Income Dynamics, one study estimated that one year after displacement, weekly earnings of dislocated workers were on average 16% lower than those of similar workers who had not lost their jobs (Fallick, 1996). Another study estimated that, two years after losing their jobs, workers displaced from the automobile, textile, meat packing, steel, and electronic-components industries earned 10 to 20% less than they had earned before displacement (Jacobson, LaLonde, and Sullivan, 1993). Dislocated workers, who are able to avoid additional displacements, may experience greater earnings recovery that those who do not. Unfortunately, many displaced workers, especially those who are less-educated and who lose their jobs from small-scale layoffs rather than plant closings, experience multiple concurrent displacements (Huff Stevens, 1997).

To help individuals learn new skills and upgrade their existing skills, the federal government offers training assistance to dislocated workers through Title III of JTPA and the Economic Dislocation and Worker Adjustment Assistance Act (EDWAA). In addition, the Trade Adjustment Assistance (TAA) Program and NAFTA Transitional Adjustment Program (NAFTA/TAA) provide training to individuals who lose their jobs due to international trade.

Under Title I of WIA, employment and training services to dislocated workers are supported through a separate funding stream. Dislocated workers who have received core and intensive services and cannot obtain or retain employment will be eligible to receive training services through the receipt of an Individual Training Account.

Only a small number of evaluations of training programs for dislocated workers have been conducted. From the studies that have been conducted, the following conclusions can be drawn:

.. Short-term and long-term training have had mixed, though generally insignificant, effects on the earnings and employment of dislocated workers (Leigh, 1990; Corson et al., 1992; Kodrzycki, 1996).

Three studies of demonstration projects conducted in Buffalo (New York), Texas, and New Jersey during the 1980s found that short-term training (three to six months) had no measurable effect on short-term earnings (Leigh, 1990). In the New Jersey demonstration, the earnings of those individuals who received training did not differ significantly from the earnings of individuals who received only job search assistance (Corson and Haimson, 1996).

Studies of federal training programs for dislocated workers reached similar conclusions. An evaluation of the training components of the TAA program concluded that individuals who received long-term training did not have significantly higher wages or higher employment rates after three years, than those who did not receive training, when controlling for other differences between the groups (Corson et al., 1992).

An additional study of the EDWAA services in Massachusetts also concluded that training did not have a significant effect on earnings (Kodrzycki, 1996).

Research on displaced workers in Washington State during the early 1990s found that each completed credit hour of community college education resulted in a $20-$24 annual earnings increase. This constituted a 3-4% increase in earnings for the average worker who completed the average of 28 credits. A greater earnings impact was found for courses in health-related fields, technical and

vocational courses, and those in math and science fields (Jacobson, LaLonde, and Sullivan, 1999).

- Two studies of programs in metropolitan regions have found that training does have a positive and significant effect on earnings. While noteworthy, the findings from these studies cannot be generalized to the larger dislocated worker population.

An evaluation of the St. Louis Metropolitan Reemployment Project suggests that those involved in classroom training or on-the-job training earned, on average, more than those who did not receive training in the year after leaving the program (Benus and Byrnes, 1993). The authors note, however, that the project was conducted in one small geographic area, and they caution against reaching broader conclusions.

A study of a state dislocated-worker program in Allegheny County, Pennsylvania, concluded that training had a positive effect on long-term earnings (Jacobson, LaLonde, and Sullivan, 1994). When earnings were measured after seven years, individuals who received training earned significantly more than individuals who did not receive training. These earnings differences were between $100 and $400 per quarter per year of training received.

POTENTIAL RESEARCH TOPICS / SUBJECT AREAS

Delivery of Services

- → Training services will be administered under WIA through the use of ITAs. Will the increased level of customer choice lead to an increase in the employment and earnings of dislocated workers who receive training?
- → What information and supportive services are needed to make the ITAs effective?

Retention Services

- → What types of retention services can be provided to formerly dislocated workers to help them remain employed and increase their earnings once they have found employment?

2.c. Sectoral Strategies

Traditional employment and training efforts have focused on enhancing the skills set of workers through an individualized training and placement strategy (supply-side), largely without any form of organized, collective involvement by employers. To increase the level of employer involvement and to link training to the needs of employers, some communities have begun experimenting with sectoral employment strategies. A sectoral strategy is one that targets an

occupation or cluster of occupations within an industry, seeks to become an important and influential actor in that sector, and intervenes to benefit low-income workers by connecting individuals to better jobs and by achieving systemic changes in labor markets (Elliott and King, 1999).

A number of sectoral strategies involving industrial unions, multi-employer funds, craft unions, contingent workers and non-union models have been undertaken across the country. One such example is the Wisconsin Regional Training Partnership, a jointly governed consortium of business and labor which focuses on incumbent worker training, modernization, and future workforce development for the metalworking industry.

Many publicly initiated sectoral strategies have also been implemented in recent years. In these efforts, state and local governments or quasi-public agencies play a fundamental role in initiating, facilitating, or overseeing the activities related to the initiative. The Garment Industry Development Corporation (GIDC), a partnership between several garment industry associations and the City of New York, is one such example. Through training and education programs for production workers and management, GIDC aims to assist New York's garment producing firms to remain competitive in the global economy.

Although sectoral training initiatives are still in their infancy, preliminary evidence suggests that they have considerable promise.

- Although no comprehensive evaluation of the Wisconsin Regional Training Partnership has been completed, early findings indicate that the initiative has resulted in significant improvements in skill levels, employment stabilization and wages for incumbent worker (Dresser and Rogers, 1998).

- A study of thirteen exemplary sectoral employment programs found that sectoral strategies are most successful when utilized by organizations which have expertise in the targeted sector, leverage through organized members or financial resources, key allies in the sector, the ability to adapt to change, and the capacity to persevere over the long term (Elliott and King, 1999).

The same study found that the effectiveness of sectoral strategies may be constrained by the following three factors:

- Economic changes over the past 25 years have had negative impacts on the earnings, benefits and job security of low-skill workers.

- Labor markets are becoming increasingly complex and fluid, making it more difficult to determine how and when to intervene.

.. Public funding of employment programs limits the ability of organizations to respond quickly to labor market changes, and may preclude innovative and long-term training strategies (Elliott and King, 1999).

A study of publicly initiated sectoral strategies (Siegel and Kwass, 1995) cited the following limitations:

.. Most initiatives target sectors that offer limited job opportunities for the urban poor (e.g. emerging industries that do not have demand for lower-skilled workers, or mature industries which tend to focus on training incumbent or dislocated workers, rather than new workers).

.. Initiatives that do target sectors with many low-skill or entry-level jobs often fail to address job quality. Such sectors have low job quality, low wage levels, and offer limited opportunities for long-term economic advancement.

3. PROVIDING TEMPORARY INCOME SUPPORT TO UNEMPLOYED INDIVIDUALS

The Unemployment Insurance (UI) system provides temporary income support for unemployed workers who meet state eligibility requirements and are actively engaged in seeking suitable employment. The UI system is designed to temporarily assist individuals until they can find employment and to help stabilize the economy during times of economic recession.

State UI policies vary with respect to eligibility requirements, duration and levels of UI benefits, allowable income disregard levels, and other program rules. Income support allows individuals and their dependents to maintain a familiar standard of living and to meet basic financial obligations during periods of temporary unemployment and job search.

In recent years, there have been efforts to link UI to employment and training programs. Welfare-to-Work programs implicitly gives UI a role in assisting welfare recipients, many of whom have had limited experience in the labor market. WIA reinforces earlier efforts, such as WPRS, to establish closer links between programs, including Unemployment Insurance services and various providers of reemployment services. Although WIA does not amend federal Unemployment Insurance laws, it does require that programs authorized under state UI laws be mandatory partners in the workforce development system.

Reemployment Incentives for UI Recipients

In the past two decades, policymakers and researchers have looked at a number of approaches to creating reemployment incentives for dislocated workers. This interest has been based on two types of concerns: first, reducing the work disincentive effects of UI and other income support programs, especially Trade Adjustment Assistance; and, second, compensating unemployed workers for the losses they experience in a dynamic economy. In turn, two types of reemployment incentives have emerged: reemployment bonuses that simply try to speed reemployment by providing lump-sum payments in lieu of UI to UI recipients who return to work quickly; and wage/earning supplements that are designed to both speed reemployment and partially compensate for earnings losses.

In order to encourage UI recipients to increase their job search efforts and to become reemployed in full-time positions as rapidly as possible, a number of demonstration programs of DOL have offered cash bonuses to individuals who become employed within a specified period of time.

Reemployment bonuses were tested in four state demonstration projects in the late 1980s and the early 1990s. These demonstrations in the states of New Jersey, Illinois, Washington and Pennsylvania found:

.. Reemployment bonuses encouraged UI recipients to find employment and thus reduced the amount of time that individuals received benefits (Woodbury and Spiegelman, 1997; Corson et al., 1991; Spiegelman, O'Leary, and Kline, 1992; Decker and O'Leary, 1994). For even the largest bonus amounts tested, the UI reductions were generally less than a week in length. One demonstration project in New Jersey found that reemployment bonuses, when combined with job search assistance for dislocated UI recipients, led to a larger reduction (1.6 weeks) in receipt of UI benefits (Corson et al., 1989).

.. In addition, reemployment bonuses were found to significantly reduce the probability that claimants would exhaust their UI benefits before finding work (Decker and O'Leary, 1994).

.. The bonuses were not found to encourage individuals to accept jobs with low wages, just to collect the bonus, as some scholars had feared. The initial earnings of individuals were not significantly lower than those of the control group (Davidson and Woodbury, 1996)

.. Reemployment bonuses were found to reduce the amount paid to individuals in UI benefits. However, the costs of bonuses in four of the eleven experiments were greater than cost savings to the government in UI benefits.

Several of the reemployment bonus offers tested showed net benefits to the government as a whole (Corson et al., 1989; Decker and O'Leary, 1994).

More recent research has suggested that reemployment bonuses could be cost effective if used in conjunction with worker-profiling efforts and targeted to individuals most likely to be unemployed for long periods of time (O'Leary, Decker, and Wandner, 1998).

Duration of Receipt of Unemployment Insurance Benefits

Given that the economy remained strong during the mid-1990s and that the unemployment rate reached historically low levels, the average length of time that individuals receive UI benefits is longer than would have been expected during a period of economic growth. A study funded by DOL concluded that the increased average UI durations may be the result of three trends (Mathematica Policy Research, Inc., 1999):

- The average length of time that all individuals (not just those receiving UI benefits) are unemployed has remained high during this period.

- The percentage of those who receive benefits and are members of demographic groups that often experience long durations of unemployment has increased. This includes older workers, women, and African Americans.

- Individuals who lose jobs in manufacturing experience shorter periods of unemployment than those individuals that lose jobs in other industries. As manufacturing employment has decreased, the percentage of unemployed individuals who lost jobs in manufacturing has decreased as well.

Wage Replacement and Potential Duration of Benefits

The percentage of an individual's earnings that are replaced by UI benefits vary greatly among states. A number of studies have shown that in order to meet the needs of households, UI benefits should replace approximately half of an individual's pre-unemployment earnings (O'Leary and Rubin, 1997). In 1995, the Advisory Council on Unemployment Compensation recommended that UI benefits be equal to at least 50% of pre-unemployment earnings. Despite these findings, wage replacement rates continue to vary from state to state. While there is some agreement that UI benefits should replace 50% of the wages of an individual who had been employed full-time during a full year, there is less agreement on the correct replacement rate for individuals that work part time or for only portions of the year.

The vast majority of states limit the receipt of regular UI benefits to 26 weeks in keeping with the federal Unemployment Insurance program. This limits is designed encourage individuals to find suitable employment and to reduce the

cost of the UI program. A number of studies have demonstrated that an increase in maximum duration of benefits will lead to an increase in the average duration of UI benefits. (Woodbury and Rubin, 1997). These studies have generally shown that an increase of one week in maximum benefits wills lead to an average increase of one day in the receipt of UI benefits.

During periods of recession, the Extended Benefit (EB) program offers an additional 13 weeks of UI benefits to those individuals who are unable to find employment. In addition, Congress has enacted emergency programs to extend UI benefits for an even longer period of time during the past six recessions. There is general consensus that these EB programs are needed in some circumstances. However, there is some debate about the pre-conditions that must exist before these programs are enacted.

Unemployment Insurance Recipiency Rates

UI recipiency rates are cyclical by nature, rising during recessions and declining during periods of economic growth (Wandner and Stengle, 1997). Over the past fifty years however, the percentage of unemployed individuals who receive UI benefits has been in a general downward trend. Previous research has suggested that a variety of factors have led to this decrease including the decline in manufacturing, the decline of unionization, population shifts, and state and federal policy changes (Bassi and McMurrer, 1997).

CURRENT AND RECENTLY COMPLETED RESEARCH FUNDED BY THE U.S. DEPARTMENT OF LABOR

Evaluation of Remote Initial Claims Filing:
This evaluation addresses questions concerning impacts of remote initial claims filing on trust-fund balances, claimants, and on operations. The new study is a follow on to an earlier pilot – completed in July 1998 – that assessed the Wisconsin, Colorado, and San Diego experience with remote - claims filing.

Self-Employment Assistance:
This study will perform a cost-benefit analysis of some or all the programs that States are currently offering that provide self-employment assistance as part of their overall unemployment compensation programs.

Independent Contractors:
This study is designed to address research questions affecting (and affected by) use of independent contractors as an alternative work arrangement.

The Harmonized Wage Code:
The purpose of the research is to determine the probable impact of excluding certain elements from the definition of wages, as part of the Targeted Harmonized Wage Code (THWC), on State unemployment insurance (UI) revenues and claimant benefits.

Exhaustees:
This study will provide up-to-date information - based on a sample survey in 25 States – on the behavior, experiences and labor market characteristics of UI exhuastees are served by the UUI program, including worker profiling systems.

Impact of Welfare Reform on UI:
The purpose of the research is to determine the probable impact of welfare reform on the Unemployment Insurance (UI) Service, including recipiency rates for former welfare recipients and the impact of such payments on trust fund solvency.

Job Search Assistance:
The demonstration was designed to determine the effectiveness of three different types of job search assistance programs. The services were of progressively greater intensity -- structured job search assistance (SJSA), individualized job search assistance (IJSA), and individualized job search assistance with training (IJSA+). Test programs were operated in Florida and the District of Columbia, with claimants selected in 1995 and 1996. The study builds on the results of a prior demonstration program in New Jersey.

Variations in Recipiency Rates Across States:
This study will conduct a systematic analysis of factors that affect UI benefit recipiency in the States. The interest will center primarily on situations of low recipiency and the explanation of low recipiency. The analysis will encompass all state programs so that low recipiency will be examined within a comparative framework that also includes states with high benefit recipiency.

POTENTIAL RESEARCH TOPICS / SUBJECT AREAS

Alternative Approaches to Reemployment Incentives for UI Recipients

- How do reemployment bonuses compare to wage/earnings supplements in their impacts on U.S. workers?
- What would be the effect of offering an incentive to employers for hiring unemployed individuals?
- Would a strategy that entials compensation for partial earnings lost, inconjuntcion with reemployment, be effective at encouraging individuals to become employed?

Strategies for Linking Unemployment Insurance Benefits to Reemployment Services

- How can worker profiling and reemployment services be improved?
- How else can UI benefits be combined with reemployment services to help unemployed individuals find employment?

Effect of Various Job Search Expectations for Individuals Receiving Unemployment Insurance

- What are the job search expectations for unemployed individuals in various states? How should these expectations change as the local economy changes?
- Which requirements are most effective at assisting individuals to become employed?
- How can the job search efforts of individuals be verified?

Effect of Increased Duration of Receipt of Unemployment Insurance Benefits on the UI Trust Fund

- What has been the impact of increased UI duration on UI trust funds during the recent period of economic recovery?

Maximum Duration of Receipt of UI Benefits

- What is the most effective maximum duration of receipt of UI benefits?
- What happens to UI exhaustees in periods of high employment?

Effect of Alternative Wage Replacement Rates

- What is the effect of various wage-replacement rates on the duration of receipt of UI benefits? Do states with high wage-replacement rates have longer average durations of UI benefits receipt than do states with lower wage replacement rates?
- What is the effect of various wage-replacement rates on the UI trust fund?
- Are wage replacement rates likely to change during a period of economic recession?

Unemployment Insurance Recipiency Rates

- What accounts for varying UI recipiency rates among states?
- What is the rate of eligibility for UI for former welfare recipients?

Alternative Definitions of Suitable Work

- How should "suitable work" be defined for unemployed individuals?

Effect of Offering Unemployment Insurance Benefits for Temporary Employees, the Self-Employed and Those Taking Family Leave

- Under what circumstances, if any, should the UI system provide benefits to temporary employees or the self-employed?

Benefit Extensions in Recession

- What should an extended unemployment compensation-link program look like in the next recession?
- Should there be a special program for former welfare recipients?

Financing of the UI System

- What improved measures of the degree of experience rating in states should be developed? In particular, how can a better measure of the level of ineffective charges be developed?
- What prototype tax system for states should be developed that would be easy for employers and State Employment Security Administration staff to understand, would provide for effective experience rating, and would maintain a solvent trust fund?
- How have risk factors for trust fund solvency changed over time? What are the implications of these changes for the future?

4. SUPPORT SERVICES NEEDED TO MAINTAIN EMPLOYMENT

Some workers are in need of support services that can alleviate barriers to employment. These services may include child care assistance and transportation assistance.

Child Care

Working mothers, whether single or married, often have difficulty finding accessible, affordable, and safe care for their children. For children who are sick, very young, or whose mothers have work schedules deviating from the typical eight-hour day, child care is difficult to find (U.S. General Accounting Office, 1995a). To meet this need, a number of government programs subsidize the cost of child care for low-income working mothers.

The likelihood of employment increases for low-income mothers when the cost of child care is reduced through, for example, federal or state subsidies (Kimmel, 1994, 1998; Anderson and Levine, 1999; Berger and Black, 1992).

Resources for child care subsidies have fallen short of the demand. Before the implementation of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996, states limited the number of welfare-to-work participants who required child care. In addition, many women whose subsidies ran out were forced to quit their jobs and return to AFDC (U.S. General Accounting Office, 1995a).

Transportation

For individuals who do not own a car or have access to public transportation, transportation can be a barrier to finding and retaining employment. A great deal of research has studied the geographical barriers to employment for specific populations. Access to employment opportunities has been shown to be an important predictor of the probability of employment for inner-city youth (Ihlanfeldt and Sjoquist, 1991). In addition, research on Los Angeles has demonstrated that for the poor, improved geographical access to jobs indirectly increases wages by reducing commuting time and expenses (Ong and Blumenberg, 1998) Furthermore, welfare usage has been found to decrease when geographic job access improves (Blumenberg and Ong, 1998). Lack of transportation continues to be an employment barrier for individuals with disabilities.

The Gautreaux experiment examined the effects of relocating African-American public housing residents to homes in Chicago and its suburbs. Residential location was found to have an impact on employment rates, with those who moved to the suburbs more likely to be employed. The effect persisted after controlling for human capital factors, personal characteristics, and the length of time since the initial move (Rosenbaum and Popkin, 1991; Popkin, Rosenbaum, and Meaden, 1993).

The JOBLINKS demonstration program, funded by the Federal Transit Administration, tested transportation strategies in rural and urban areas, linking unemployed and underemployed individuals to employment opportunities. In 1995–1996, ten demonstration programs were funded in six states.

- Transportation programs that provided an array of complementary services, beyond simply transportation to employment, were most successful at assisting individuals to become employed (Goldenberg, Zhang and Dickson, 1998; Community Transportation Association of America, 1998).

- Program success is strongly related to targeting the needs of a specific population, understanding local job markets, and developing partnerships and coordination between transportation agencies, human service providers, and employers (Goldenberg, Zhang and Dickson, 1998).

- In an assessment of the JOBLINKS programs, transportation solutions were found to be most effective under three conditions. First, jobs must be available in the local (metropolitan) labor market. Second, a population of "job-ready" workers with transportation barriers must be targeted by reverse commute programs. Third, employers, transit providers, and social service agencies must coordinate their efforts to comprehensively address potential problems faced by program participants (Goldenberg, Zhang and Dickson, 1998).

- Current research has not investigated the effect of transportation services on an individual's ability to obtain and retain employment and increase earnings over time (Nightingale, 1997).

Transitional Costs

In addition to child care and transportation issues, transitional costs are also a factor in limiting employment and training options for women who seek job/skill training and entry level employment for nontraditional or high-paid jobs. Transitional costs are costs that occur before beginning certain types of jobs. For example, transitional costs can include expenses for union initiation fees and/or dues, tools, uniforms, and shoes or boots. Additionally, transitional costs can include expenses for emergency living and medical expenses (e.g., rent, food, dental appointments, and medical appointments).

CURRENT RESEARCH

Bridges to Work Demonstration:

The U.S. Department of Housing and Urban Development, in conjunction with the Department of Transportation and the Federal Transit Association, is currently funding a five-site demonstration project aimed at examining whether improved access to suburban jobs in higher-income areas improves the employment outcomes for work-ready urban residents. Bridges to Work builds on the lessons of JOBLINKS in order to develop new ways to link urban welfare recipients to suburban jobs. The program provides transportation services in conjunction with other services that individuals need to find and retain employment.

Moving to Opportunity (MTO) for Fair Housing Demonstration:
This demonstration, currently funded by the US Department of Housing and Urban Development, aims to determine what occurs when low-income families living in public housing projects or Section 8 project-based developments are provided with Section 8 rental assistance to help them relocate from distressed, high-poverty, inner-city communities to low-poverty communities. The study will examine the long-term impacts on employment, earnings, education, and quality of life for the individuals who relocate through the demonstration. The study will also examine the impacts on the neighborhoods to which MTO families move.

POTENTIAL RESEARCH TOPICS / SUBJECT AREAS

The Role of Child Care Services

- To what extent does the availability of and access to childcare services influence the employment decisions of welfare recipients?
- What is the impact of childcare services on employment decisions for single vs. married women?
- Which methods of allocating childcare subsidies (tax credits, vouchers, cash assistance, and contracts between public entities and third-party vendors) improve access to childcare?
- Will the universal implications of the Workforce Investment Act's One-Stop Centers reveal a broader impact and need for child care?

The Role of Transportation Services

- What transportation strategies are most effective in assisting individuals who lack reliable and affordable transportation to find and retain employment?
- What is the potential for reliable transportation options for rural and inner city workers?

The Role of Transitional Costs

- Can the use of loan programs, similar to the Native American micro loan program, be used to retain women's entry to work and training?
- What is the impact of transitional costs on individuals in their entry to work and training? What is the impact of transitional costs on women, particularly with the time limits on welfare?

SECTION IV.C.

REVIEW OF RECENT RESEARCH, EVALUATION, PILOT, AND DEMONSTRATION INITIATIVES TO ASSIST IN THE IMPLEMENTATION AND IMPROVEMENT OF PROGRAMS UNDER THE WORKFORCE INVESTMENT ACT:

PROGRAMS, PILOTS, AND DEMONSTRATIONS DESIGNED TO ASSIST YOUTH

The youth labor market is increasingly affected by economic and social factors, similar to those affecting the larger labor force. Economic trends such as global competition and the loss of high wage and low skilled jobs leave today's youth facing more daunting challenges to sustaining work (Dear, 1995). The opportunities for upward mobility are constrained due to such factors as an increasing need for higher education to acquire a living-wage job and the need for dual wages to support a household. Some of the particularly daunting trends facing the future workforce, and disadvantaged youth in particular, include the following (data from Current Population Survey as cited in Halperin, 1998):

Young people are earning less and less. Real income rates for 18 to 24-year-olds have declined steadily since 1981, despite a decrease in the number of young people in the job market. Between 1981 and 1996, the number of 18 to 24-year-olds in the U.S. population fell by about 5 million, almost 18%.

More and more youth are unemployed, especially minorities. Full- and part-time employment rates for young people were almost 3% lower in 1997 than they were in 1989. For minority youth, employment rates were 20 to 30% below their white counterparts. Young men in this age range were earning 33% less in real dollars than they were in 1989; young women were earning 16.5% less.

A high school degree is no longer sufficient. Twenty percent of the American workforce is made up of young people with only high school degrees or with some college. Labor statistics show that these young people are having serious difficulties in the labor market and in providing a decent quality of the life for themselves. In 1997, nearly 50% of them were either unemployed, underemployed, or did not earn enough to support a family. Additionally, fewer high school graduates were employed full-time in 1997 (60%) than in 1989 (64%).

School dropouts face the worst economic fates. In 1997, only 35% of 16 to 24-year-old dropouts were employed full-time, compared with 82% of college graduates.

Full-time wages are not enough if you are a dropout. Twenty-six percent of high school dropouts were earning less than the poverty-line income standard for a four-person family. Except for children living in families headed by four-year college graduates, poverty rates for children were higher in 1997 than in 1989.

The competition will increase. Over the next ten years, the number of people between 18 and 24 will reach its highest level since 1981. With a projected growth rate of 21%, by the year 2010 there will be more young people in the U.S. job market than ever, and far more competition for available jobs.

However, the economic recovery of the 1990s has recently begun to positively impact youth earnings and employment rates. Between 1996 and 1998, young non-college-educated men began to experience a boost in employment and earnings, including disadvantaged African American youths, while adult men have not had similar gains (Freeman and Rodgers, 1999).

Youth and Training

A 1991 study by the Rand Corporation examined the state of youth training in three major industrialized countries; the United States, Britain, and Australia (Tan et al., 1991). The researchers found that in all countries the probability of receiving formal training increased with one's level of education but that the level of training peaked at different school levels in different countries. Company training was more likely in higher-technology jobs and technological training was less likely for lower educated youth. For American youth, the probability of receiving training increased with years of work experience, and after an initial training period in the first year of a job, training from schools and business/technical institutes decreased with years at a job. Thus, American companies were more likely to rely on on-the-job (rather than educational or outside sources) training to compensate for lack of skills.

Lynch (1993) found that employers are not likely to provide training within the workplace for entry-level workers. In fact, work-based training is much more likely in companies hiring college-bound or college-educated youth. Lynch argues that the American system will have to provide more work- based training for non-college-bound youth and entry-level work because employers lack the desire or energy to do it on their own.

In all three countries, greater probability of training was highly correlated with union membership. In addition, American male youth are likely to receive less formal training when they enter the workforce, but more training as time in the labor force, compared to those in the other countries. Company-based training had the greatest positive effect on wages for youth and in reducing youth unemployment.

1. ASSISTING IN-SCHOOL YOUTH

Academic and Educational Programs

Today's youth need programs that serve not only those who drop out of school but also those who are at risk of doing so. Even small choices made in high school, such as course selection, can have immediate impacts on employment and occupational status outcomes post-school (Gamoran, 1998). The existing evaluations of in-school programs show success in dropout prevention and in easing the transition from school to work. Additionally, the School to Work Opportunities Act (STWOA), WIA, and Title IIIE of the Carl D. Perkins Vocational and Applied Technology Education Act, provide new opportunities to assist the entire future workforce.

School-To-Work

The STWOA provided a framework and seed money for states and localities to develop comprehensive systems designed to improve the transition from secondary education to either post-secondary institutions or the workforce. The STWOA specified three types of activities that states and localities should pursue – work-based learning, school-based learning and connecting activities. Beyond these initial specifications, the STWOA gave a great deal of flexibility to states about how to actually implement and govern such a system.

Recent research and evaluation efforts of school-to-work have found:

- Diverse career exposure has expanded students' educational and employment options for both college- and non-college-bound students participating in school-to-work activities (Mathematica Policy Research, Inc., 1999).

- Enrollment in college-prep courses is higher for students in school-to-work programs than for their peers in the general curriculum (U.S. Dept. of Education, Planning and Evaluation Service, 1999).

- Currently, the strongest emphasis is placed on broad career development, with fewer opportunities in job-specific internships and apprenticeships. High school students are better suited for career exploration than for occupational skill development (Mathematica Policy Research, Inc., 1999; U.S. Congress, Office of Technology Assessment, 1995).

- Short-term worksite visits and job shadowing are the most common forms of work-based learning, while more intensive activities such as paid work or training are rare (Hershey et al., 1999).

- Past program evaluations have found that work-based learning has only small long-term and short-term impacts. Small positive effects on attendance, grades, and graduation rates have been found. Findings on the impact on employment, mobility, and earnings a few years after graduation have been inconclusive, with some studies showing slightly positive impacts and some slightly negative results (U.S. Congress, Office of Technology Assessment, 1995; Hershey et al., 1999).

- The opportunities provided through work-based learning are often better than students could hope to obtain on their own through after-school or summer job activities (U.S. Congress, Office of Technology Assessment, 1995).

- Students perceive that their participation in a school-to-work program improves their academic performance, and increases their self-confidence, motivation, and acceptance of responsibility. Student evaluations have also reported participation to be beneficial to their future education and career plans (Johnson, 1997). Similar attitudes were expressed by students in school-to-work programs that followed a youth apprenticeship model (Kopp and Kazis, 1995; Silverberg, 1996).

Research has also identified several procedures that make school-to-work experiences most successful. These include:

- Close coordination between work-based and school-based instruction activities (U.S. Congress, Office of Technology Assessment, 1995).

- Intensive curriculum monitoring and teacher professional development, collaboration, and support (Pedraza, Pauly, and Kopp, 1997).

- Grouping together in classes students who have similar industry or occupational work sites (Corson and Silverberg, 1994).

- Providing opportunities for increased complexity and importance of responsibilities, individual and teamwork-oriented assignments, and participation in trade, professional, or union activities (U.S. Congress, Office of Technology Assessment, 1995).

Employer involvement in school-to-work programs is critical. Much research has focused on the factors associated with employer participation. Research findings include:

- Many school-to-work programs are unable to attract employer participation and do not provide sufficient incentives for employers to participate (U.S.

Department of Labor, 1997; Corson and Silverberg, 1994; Hollenbeck, 1996; CSA, 1992; and U.S. Congress, Office of Technology Assessment, 1995).

.. Participation is more common among larger employers and in the public and not-for-profit sectors than among for-profit firms (Institute for Research on Higher Education, 1997; Bailey, Hughes, and Barr, 1998).

.. The considerable time and effort to recruit and retain employers has resulted in a slow rate of employer participation in prototypes of STWOA's work-based learning (Bailey, Hughes, and Barr, 1998; National Center for Research on Vocational Education, 1998; U.S. Congress, Office of Technology Assessment, 1995).

.. Employers are reluctant to participate in school-to-work programs because students lack work-readiness skills and because of the costs associated with wages, training, and mentoring (U.S. Department of Labor, 1997).

.. Coordination assistance from a school or other intermediary may promote employer involvement (U.S. Congress, Office of Technology Assessment, 1995).

.. Other work has found positive results concerning employer participation in school-to-work programs (Phelps and Jin, 1997). In cooperative education programs that have a relatively small number of students, there has been sufficient employer recruitment. Participating employers are regularly satisfied with school-to-work programs and find that youth work productively. In addition, employers were found to rely heavily on schools to screen students for employment (American Youth Policy Forum, 1999).

Tech-Prep

Title IIIE of the Carl D. Perkins Vocational and Applied Technology Education Act provides state grants to be issued to public school and postsecondary institutions for the integration of academic and vocational education programs into a continuous sequence aimed at an associate's degree.

A national evaluation of Tech-Prep programs conducted from 1993 to 1997 found the following:

.. Eighteen months after graduation, 72% of former tech-prep student were working, and half of those working were also attending schools (Hershey, et al., 1998).

.. One-quarter of their jobs required skills obtained in high school tech--prep courses, and 25% of their jobs were related to their career goals (Hershey et al., 1998).

Dropout Prevention Programs

The U.S. Department of Education provided grants from 1991 to 1995 to support dropout-prevention programs. An evaluation of 16 programs, including those operating in both middle schools and high schools, was conducted. High school programs included those preparing students for a high school diploma and those with an emphasis on GED attainment.

The evaluation found:

.. High intensity, day-long middle school programs improved social promotion and reduced drop-out rates, but did not improve grades or test scores. Low-intensity, partial-day middle school programs had no impact on outcome measures (Dynarski et al., 1998).

.. High school GED programs improved GED attainment but did not reduce drop-out rates. Programs aimed at high school diploma attainment had no impact on school completion or dropout rates (Dynarski et al., 1998).

Employment Programs

A number of summer and vocational employment training programs have been instituted to provide work experience to economically disadvantaged in-school youth. Several studies have evaluated the impacts and effectiveness of these programs.

Summer Youth Employment and Training Program (SYETP)

The Summer Youth Employment and Training Program provides summer jobs and remedial education services to disadvantaged youth.

.. Youth in the program received meaningful work experience which allowed them to acquire or strengthen their job skills (Westat, 1994).

.. The Summer Youth Employment and Training Program increased employment rates of youth. Two of every three jobs the program provides are held by youth that would not otherwise have worked (Grossman and Sipe, 1992).

.. There was rarely any employment displacement in the Summer Youth Employment and Training Program. Whether Summer Youth Employment and Training Program provides long-term employment results is inconclusive. Ninety percent of participating Summer Youth Employment and Training Program youth and employers noted the usefulness of the accomplished work (Crane and Ellwood, 1984).

.. The educational component increased student test scores by more than one grade, on average, during the summer. Additionally, 80% of students improved or maintained their skill levels (D'Amico et al., 1995).

.. Needed improvements in the Summer Youth Employment and Training Program include improved academic teaching, increased terms of summer employment, and improved functional aspects of educational aspects and the link between employment and curriculum (Dickinson and Kurka, 1999).

Summer Training and Education Program (STEP)

The Summer Training and Education Program is a short-term summer program providing employment and remedial education to disadvantaged youth.

.. Summer Training and Education Program students have higher achievement test scores, with relatively small financial investments. Participants displayed no significant long-term improvements in graduation rates, pursuit of post-secondary education, or employment rates, however (Grossman and Sipe, 1992; Walker and Vilella-Velez, 1992).

.. The Summer Training and Education Program has been found to increase reading and math scores and increase knowledge about responsible sexual and social behavior (Grossman and Sipe, 1992).

The High School Redirection Program

The High School Redirection Program provides a broad approach to helping disadvantaged youth. Dropout prevention is a main component of the program.

.. Peers and relatives are the primary source of referral to the redirection program. Critical factors in the success of the curriculum are parenting skills, job readiness, and personal resource management issues (Ciccone, 1991).

Youth Incentive Entitlement Pilot Project (YIEPP)

The Youth Incentive Entitlement Pilot Project (YIEPP), active during 1978-1981 in 77 sites, provided school-year and summer jobs in both the public and private sector to disadvantaged youth who stayed in school.

.. Employment rates and earnings increased for both school-year and summer periods (Farkas et al., 1982; Farkas, 1984).

.. Post-program weekly earnings increased 39% in the first year following program exit (Farkas, 1984).

Quantum Opportunities Program (QOP)

The Quantum Opportunities Program pilot demonstration, which ran from 1989-1993, was designed to test whether the provision of an intensive array of coordinated educational, developmental and community service activities can make significant impacts on the life chances of randomly selected youth from families receiving public assistance.

- Participants had more positive outcomes in terms of educational attainment and educational expectations than the control group (Hahn et al, 1994).

- Participants had fewer children, received more honors and awards, and were less likely to be arrested, than the control group (Hahn et al, 1994).

- Over a four-year period, the Quantum Opportunities Program increased high school graduation rates and the likelihood that participants enrolled in college (Hahn et al, 1994).

- Significant increases in academic and functional skills were found in the program group when compared to the control group (Hahn et al, 1994).

CURRENT RESEARCH FUNDED BY THE U.S. DEPARTMENT OF LABOR

Career Academy Demonstration:

DOL, as well as several agencies and foundations, is currently funding a research demonstration to examine the high school career academy model, which has strong in-school and work-based components.

Quantum Opportunities Program (QOP) Replication:

Currently, DOL is conducting an impact evaluation of the Quantum Opportunities Program Demonstration to determine if the program increases high school graduation rates, enrollment in postsecondary education, and avoidance of problematic behaviors that hinder movement into and through the labor market. The evaluation will be conducted through random assignment.

National School-to-Work Evaluation:

Currently, the U.S. Department of Education and DOL are jointly conducting a national evaluation of the School-to-Work program. The U.S. Department of Education is the lead agency for this evaluation.

Summer Youth Evaluation:
This study, funded by DOL, will examine the methods used by approximately twelve local programs in integrating their summer program services with year-round WIA youth activities. During the summer of 2000, this study will take a more comprehensive look at summer youth programs and their relationship with WIA.

SELECTED CURRENT RESEARCH FUNDED BY THE U.S. DEPARTMENT OF EDUCATION

National Employers Survey:
This study, currently funded by the U.S. Department of Education, examines the benefits employers receive from participation in School-to-Work programs. The third wave of data from the National Employers Survey is currently being analyzed.

The Community College and Beyond: How Tech Prep/School-to-Work Affects Students:
This research, currently funded by the U.S. Department of Education, will result in a technical report and a policy paper, both of which will address issues relating to the student outcomes of the Tech Prep/School-to-Work implementation.

Developing Employment-Related Technology Skills:
This current research, funded by the U.S. Department of Education, examines how best to provide technology education to prepare students for varying workplace settings.

Mentoring Youth at Work:
Cornell's Youth and Work Program staff has developed a conceptual framework for investigating workplace mentoring. Cornell, jointly funded by U.S. Departments of Labor and Education, intends to develop a training program for new mentors based on this framework, recruit eight sites to be randomly assigned to either receive the training or serve as control sites (and receive training later) and rigorously test the training program for new mentors. DOL is the lead agency for this evaluation.

2. ASSISTING OUT-OF-SCHOOL YOUTH

Out-of-school youth face many difficult challenges in obtaining viable employment. In addition to lacking the needed educational and training backgrounds, many of these individuals do not have access to information about job openings. Other issues, too, confront young people growing up in areas of concentrated poverty: high rates of crime, violence, and drug use, and poorly-funded schools and human service agencies pose significant obstacles to attaining quality education and self-sustaining employment.

WIA requires that at least 30% of funds for youth services be targeted to out-of-school youth. In addition, the Job Corps is retained as a separate national program, with provisions amended to strengthen linkages between Job Corps Centers, the state workforce development system, and local communities. Each Job Corps center must establish an Industry Council to provide guidance regarding appropriate vocational training in order to meet local labor market needs.

A number of specific programs have been developed to address the issues faced by economically disadvantaged out-of-school youth. These include the Job Corps, Youth Fair Chance, Title II-C of JTPA, and JOBSTART.

The Opportunity Areas for Out-of-School Youth (OASY) Initiative also addresses the issues faced by economically disadvantaged out-of-school youth. The OASY goal is to increase the employment rate of out-of-school youth in high-poverty demographic areas commensurate with the employment rate in non-poverty communities. The OASY Initiative was funded at $25 million in FY98 Appropriations. For FY99, there is an advance of $250 million to increase employment rates among ages 16-24 in high poverty areas in Empowerment Zones/Enterprises Communities, also included in the president's FY00 budget request.

A 1996 GAO study examined youth programs in states overall to determine potential ways to increase federal program efficiency while reducing costs. Most states had programs for severely disadvantaged youth, providing basic education; only some states offered vocational training. Most vocational training was focused on pre-employment preparation and did not include specific occupational training. States' residential youth programs primarily target a specific segment of the disadvantaged youth population (U.S. General Accounting Office, 1996b).

Programs of the Job Training Partnership Act

JTPA authorizes job-training services for economically disadvantaged youth, including on-the-job training, classroom instruction, and job search assistance. Title II-C of JTPA stipulates that at least 50% of program participants must be out-of school individuals.

Findings on JTPA include the following:

- A major evaluative study found that participation in JTPA programs had no statistically significant positive effects on out-of-school youth. Additionally, there was no significant reduction in crime rates or the receipt of public assistance (Bloom et al, 1994).

- Many JTPA Service Delivery Areas found that the Title II-C requirement regarding out-of-school individual participation was difficult and costly to meet. This requirement resulted in decreased overall numbers of youth targeted for service provision and increased per-participant costs (James Bell Associates, Inc., 1997).

- Other research found that participation in Title II-C programs was associated with increased educational gains among participants, marked by the attainment of a high school diploma or GED at some point during the eighteen-month follow-up period. Program participants experienced negative earnings impacts during the first follow-up quarter; subsequent earnings were not sufficient to offset this initial negative impact. Earnings losses may be caused by fewer hours worked as a result of program (James Bell Associates, Inc., 1997).

Job Corps

The Job Corps, developed in 1964, is an employment and training program aimed at providing severely disadvantaged youths (ages 16 through 24) who confront multiple barriers to employment with a comprehensive array of services, generally in a residential setting. It offers intensive skills and vocational training, basic education, support services and job placement.

The principal findings on the Job Corps program include the following:

- Educational attainment had a strong effect on the post-program experiences of Job Corps participants. Reading gains and GED attainment increased the probability of employment, while math gains had a weaker relationship to employment. Attainment of a GED increased participants' likelihood of employment by 6%, and each grade-level increase in reading increased this likelihood by 1% (Battelle Human Affairs Research Center, 1991).

.. Nearly half the jobs obtained by Job Corps participants were low-skill positions, unrelated to Job Corps–provided vocational training. In addition, only one-third of Job Corps participants was found to have completed that training; forty percent of Job Corps funds were spent on those who did not complete training. Those who did complete training were five times as likely to obtain a training-related job that paid higher wages than other jobs (U.S. General Accounting Office, 1995b).

.. Job Corps needs to improve its method of selecting applicants in order to reduce its early dropout rate; Job Corps must improve its ability to identify participants with the motivation needed to complete the program (U.S. General Accounting Office, 1997).

CURRENT RESEARCH FUNDED BY THE U.S. DEPARTMENT OF LABOR

Job Corps Partnering with Employers:
This demonstration, currently funded by DOL and located in the Atlanta, Georgia region, pairs employers with specific Job Corps Centers to provide training of interest to the employer.

Job Corps Test of Conflict Resolution Techniques:
DOL is currently funding a study to test the Federal Conciliation and Mediation Service (FCMS) concept as a youth peer mediation program. Several Corps Centers near FCMS mediators will be chosen to operate the demonstration.

The National Job Corps Study:
This study, currently funded by DOL, evaluates the impact of the Job Corps program on student employment outcomes. Approximately fifteen thousand Corps applicants are part of the research sample. In addition, a cost-benefit analysis and a process study are being conducted. Impacts will be estimated at 12, 30, and 48 months after random assignment.

The Youth Opportunity Areas Demonstration Evaluation:
DOL is currently funding a study of the effectiveness of the Youth Opportunity Area Demonstration by: (1) determining pre-post youth employment rates in the demonstration areas; (2) conducting process evaluations in the five demonstration sites that were awarded this year; and (3) conducting ethnographic studies in these same five sites.

The Evaluation of the School-to-Work Out-of-School Youth Demonstrations and Job Corps Model Centers:
DOL and the U.S. Department of Education are currently funding a process evaluation examining the adaptation of school-to-work principles and strategies to programs serving out-of-school youth. The study also will examine the implementation of school-to-work at Job Corps Model Centers.

The Youth Offenders Demonstration:
DOL is currently funding a study of fourteen community-wide and institutional projects to address the problems of youth crime and juvenile offenders. The Departments of Labor and Justice are jointly sponsoring its evaluation.

The Center for Employment Training (CET) Replication Impact Study:
DOL is currently funding a study examining the post-program wage and social impacts on individuals who participated at CET replication sites. The CET evaluation will determine whether replication can achieve the same return as the original demonstration project in San Jose, California.

Youth Conservation and Service Corps
Funded by the National and Community Service Act of 1990, DOL is examining the conservation and youth service corps. The corps organizes 18-25 year old out-of-school youth for paid environmental and community service projects. Additionally, corps members receive services such as job search, job training, and basic education.

- At fifteen months post-program entry, participants had higher employment rates and worked more hours, but were less likely to earn a technical certificate or diploma (Jastrzab et al., 1996).

- The largest educational and employment impacts were found for African American and Hispanic participants, whereas white males had negative employment and earnings impacts (Jastrzab et al., 1996).

YouthBuild
The 1991-1994 YouthBuild Demonstration sought to provide life skills and job readiness training to disadvantaged youth through work on community housing projects.

DOL published in the *Federal Register* on June 2, 1999 a grant announcement to award 25 to 30 grants to cities, rural areas, and Indian Reservations for the Youth Opportunity Movement under WIA.

.. When participant outcomes were compared with those of other programs, researchers found a higher percentage of participants completing a GED (20%) (Ferguson and Clay, 1996).

.. Construction training generally produced laborers who had the skills necessary for future employment (Ferguson and Clay, 1996).

.. Among second-year participants who entered employment directly after the program, 66 percent entered construction-related jobs and earned an average of $7.60 per hour; the remaining 33 percent earned an average of $6.80 per hour in non-construction jobs.

Youth Fair Chance

The Youth Fair Chance program, established in 1994, supported efforts in sixteen rural and urban areas to help individuals aged 14 to 30 finish high school and obtain better jobs. The Youth Fair Chance initiative attempts to improve the life opportunities of youth in high-poverty areas by providing a comprehensive array of education, employment preparation and training, counseling, and support services in a coordinated and concentrated strategy. The program focuses resources on targeted high-poverty neighborhoods by encouraging comprehensive strategies that link education, employment, social services, and juvenile justice, as well as recreation programs and other community-based activities, and by establishing new, community-based governance strategies.

Although there are no significant program outcome studies on the Youth Fair Chance Program, the principal findings available include the following:

.. Youth Fair Chance programs were able to provide youth with all services within the limits of the local service capacity and offered a more comprehensive set of services to out-of-school youth than other programs. In addition, the flexibility of Youth Fair Chance allows the program to tailor services in particular areas (Corson and Dynarski, 1997).

.. The most successful programs were those created with local organizations. The typical collaborators in Youth Fair Chance included employment training and educational organizations, social services agencies, and businesses (Corson and Dynarski, 1997).

JOBSTART

The JOBSTART Demonstration was implemented between 1985 and 1988 in thirteen sites, ranging from community-based organizations to schools to Job Corps Centers. The JOBSTART demonstration provides vocational training, basic education, and job placement to high school dropouts who possess low reading skills. In each site, 17 to 21-year-old economically disadvantaged school dropouts with poor reading skills participate in education and vocational training and receive support services and job placement assistance.

Findings on the JOBSTART program include the following:

.. At the majority of JOBSTART sites, youth did not increase earnings as compared to the control group. Significant success at one of the thirteen sites, the Center for Employment Training (CET), in San Jose, California, suggests that short-term youth training can work if it is closely linked to the needs of employers (Cave et al., 1993).

.. Participation in the program increased the likelihood that individuals would participate in educational and training activities and attain a GED or high school diploma. Female participants reaped greater employment benefits than males, because many of these participants—who are young mothers—had not spent a significant amount of time in the labor force (Manpower Demonstration Research Corporation, 1991; Cave et al., 1993).

CURRENT RESEARCH FUNDED BY THE U.S. DEPARTMENT OF LABOR

St. Petersburg, FL YouthBuild Plus:
This project, currently funded by DOL, is designed to assist economic development planning in St. Petersburg through the funding of an out-of-school youth program based on the YouthBuild model.

POTENTIAL RESEARCH TOPICS / SUBJECT AREAS

Skill and Standards

- → How should a youth's progress at skill development be measured?
- → How can progress continuums be developed into a "standards based system"?
- → In what ways have changes in educational standards affected youth training programs?

Assessment

- → What are the most effective methods for assessing youth's skill qualifications and barriers to employment or career mobility?
- → What are the most appropriate eligibility criteria for targeting youth in need of academic and other workforce skill development interventions?

Delivery of Services

- What is the impact of the WIA-mandated Youth Councils on employment and training programs for youth?
- What is the level of capacity of staff in youth programs? How can staff capacity and professional development be improved? What are the successful programs and models to build capacity in youth employment and training programs?
- What are the most effective ways to integrate employment and training programs for youth?
- How can schools build productive, lasting partnerships with other educational institutions, businesses, private institutions, and other public agencies?
- What are the characteristics of effective follow-up services (frequency, venue, individual or group, stigma issues, and continued training)?

Retention Services

- What post-employment retention support strategies have the greatest impact on the duration of youth employment and level of earnings?

Employment Effects

- What is the effect of employment on drop out rates, educational success, and birth rates among youth?

Youth with Special Needs

- What are the most significant employment barriers for Native American youth on reservations, and which employment training strategies can overcome these barriers?
- What are the employment barriers for youth in migrant farm worker families, and which employment strategies can best overcome them?
- How can interventions be structured to provide needed services to youth with disabilities?
- Which services are most effective in meeting the needs of teenage parents?
- How does incarceration affect the ability of youth to receive education and training? To what extent are their special needs, such as learning disabilities, addressed?

School-to-Work

- How are work-based learning strategies best incorporated into employment and training curricula?
- How can summer programs be coordinated with school-year programs to create viable and effective year-round training and employment strategies for youth?
- What is the long-term impact of School-to-Work activities on the employment experiences of students?

Employer Involvement and Incentives

- What are the most effective strategies for retaining employer involvement in youth employment programs? What are useful strategies for engaging employers in new and different ways?
- To what extent are employers expanding, contracting, or terminating participation in School-to-Work programs?
- What has been the long-term success of and level of employer satisfaction with School-to-Work programs?

Employment and Academic Achievement

- What impact does youth participation in extra-curricular activities, such as sports, Scouting, and other cultural activities have on employment outcomes?
- What is the potential impact of high stakes testing in schools (which may result in large numbers of high school dropouts) on training and employment programs?
- Do students who participate in School-to-Work programs have improved grades, test scores, high school graduation rates, and post-secondary enrollment rates?

At-Risk Youth

- What are the most effective services for youth who are particularly at-risk of school-related problems and/or problems finding or retaining employment?
- Can a program based on the Quantum Opportunities model, with students participating from middle school instead of the ninth grade, produce long-term gains for highly at-risk youth?

Job Corps

- How do the outcomes and strategies used by Job Corps compare to those used in the conservation corps programs, especially the California Conservation Corps?

Employment and Training Interventions Outside the School System

- What is currently known about alternative models and alternative providers of curricula designs (alternative funding streams, incentives, and credentialing)?
- What is the role of military service as a career-preparation tool for youth? How can its techniques be applied to the civilian population?
- What are the outcomes and impacts of the concentrated neighborhood programs, such as Out-of-School Youth grants for Fiscal Year 1999 and the Kulick grants?

SECTION IV.D.

REVIEW OF RECENT PILOT, DEMONSTRATION, RESEARCH, AND EVALUATION INITIATIVES TO ASSIST IN THE IMPLEMENTATION AND IMPROVEMENT OF PROGRAMS UNDER THE WORKFORCE INVESTMENT ACT:

PROGRAMS, PILOTS, AND DEMONSTRATIONS DESIGNED TO ASSIST INDIVIDUALS WITH DISABILITIES AND OTHER SPECIAL POPULATIONS

1. ASSISTING INDIVIDUALS WITH DISABILITIES TO BECOME EMPLOYED

On March 13, 1998, President Clinton signed into law Executive Order 13078, establishing the Presidential Task Force on the Employment of Adults with Disabilities. The Task Force's mandate is to examine programs and policies related to employment of adults with disabilities to "determine what changes, modifications and innovations may be necessary to remove barriers to work faced by adults with disabilities" and to recommend options for such changes. The Task Force is examining a host of issues relating to employment, including: reasonable accommodations; inadequate access to health care; lack of consumer-driven, long-term supports and services; transportation; accessible and integrated housing; telecommunications; assistive technology; community services; child care; education; vocational rehabilitation; training services; employment retention, promotion and discrimination; on-the-job supports; and economic incentives to work.

Individuals with disabilities face a number of challenges when they attempt to move into the workforce. A 1998 study by the Task Force on the Employment of Adults with Disabilities found the following barriers: an absence of health insurance as a benefit of many jobs; negative and stereotypic attitudes of employers; and a paternalistic, rather than empowering, approach in programs and services. Furthermore, the gap between adults with disabilities and other adults with respect to employment, income, education and other major indicators, is not narrowing and may have even widened (National Organization on Disabilities/ Harris Survey, 1998). Often, however, timely supports and services may help facilitate the integration of many individuals with disabilities into the workplace. For example, individuals with learning disabilities may require special accommodation under welfare-to-work policies, such as individualized training sessions, meetings with employers to address their needs, and special accommodations for accreditation tests (National Governors' Association, 1998).

There are currently several programs administered across different federal agencies which address some aspect of employment for persons with disabilities. These programs and projects range from eliminating Social Security work disincentives to supporting systems change for people with disabilities in the One-Stop Center system to developing new School-to-Work initiatives. Perhaps the most widely known program for individuals with disabilities is the Vocational Rehabilitation Program (VR) typically administered through state departments of labor.

Vocational rehabilitation involves the delivery of services designed to restore a person to the labor market. In most vocational rehabilitation programs, VR counselors make eligibility decisions, arrange for the delivery of services, and offer clients counseling and guidance. Other services, such as evaluation, training, job placement, transportation, and restoration, are likely to be purchased from a vendor. There are a number of different public and private sector vocational rehabilitation programs, each with different eligibility criteria. The main programs include the joint federal-state Vocational Rehabilitation Program (VR), the Veteran's Administration (VA) rehabilitation program, workers compensation programs, and private sector programs (Berkowitz and Dean, 1997).

Other Research Findings

- In general, special services are not available through JTPA for disability assessment or to assist the disabled (Nightingale et al., 1991; Azzam, Conley, and Mitchell, 1995).

- The evaluation of the Transition to Work Demonstration Projects began in 1992 using "natural supports," namely relatives, friends, and other personnel to help students make the transition to employment. The study reported that almost all individuals with disabilities can be employed in a workplace with natural supports, but employers require greater assistance in learning how to utilize the disabled student's skills and students need effective ways to locate and secure jobs (Azzam, Conley, and Mitchell, 1995).

- In general, greater program and service coordination for the disabled is needed to promote effectiveness, efficiency, and evaluation efforts (U.S. General Accounting Office, 1996a; Furney, Hasazi, and Destefano, 1997).

- Starting from a base of Americans with Disabilities Act (ADA) compliance, companies can look beyond compliance to transcendence by fostering opportunity and independence, not handouts and dependence, and by providing meaningful career opportunities for people with disabilities. Universal design and access, not retrofitted technology, fulfill the objective of including people with and without disabilities into productive work force participation (Blanck, 1994).

- Employers that have aggressively pursued policies and practices designed to reduce the incidence and the cost of disability in their workplace have been successful in lowering disability costs and increasing productivity (Hunt and Habeck, 1993).

CURRENT RESEARCH FUNDED BY THE U.S. DEPARTMENT OF EDUCATION/ NATIONAL INSTITUTE FOR DISABILITY AND REHABILITATION RESEARCH

The U.S. Department of Education's National Institute for Disability and Rehabilitation Research has established a five-year research agenda, including the following research topics, which are currently being conducted.

- Analysis of the current employment status of persons with disabilities, using existing longitudinal data.

- Longitudinal analysis of the effects of labor market change on the employment and earnings of people with disabilities.

- Longitudinal analysis of return to work after the onset of a disability.

- Identification and analysis of policies that foster or impede the participation of transitioning students in rehabilitation or employment service programs.

- Analysis of selected state efforts to implement work incentive systems change grants from the Social Security Administration to identify barriers and facilitators to improved work status of persons with disabilities and the critical linkage to access to affordable health care.

- Analysis of case studies of small and large businesses to determine the effect of civil rights protections and multiple environmental factors on promoting or depressing the employment status of persons with disabilities.

Longitudinal Study of the Vocational Rehabilitation Service Program:
This project, currently funded by the U.S. Department of Education, is designed to study rehabilitation service outcomes and program investment returns.

POTENTIAL RESEARCH TOPICS / SUBJECT AREAS

Changes in the Workforce Development System

- To what extent are special populations being served by the workforce development system? What additional supports are needed to effectively serve special populations under WIA?
- In what ways are special populations affected by WIA's triage approach (which encourages rapid entry into employment)? What are the most effective ways to serve special populations under this approach?
- How accessible are One-Stop Centers? Is universal access to the services of the One-Stop Centers generally provided? What types of accommodation are requested?

Employment and Training Programs for the Disabled

- Which employment-readiness characteristics (e.g. education, work experience, transportation, level of required accommodation) are most predictive of employment status?

Delivery of Services

- To what extent does the workforce development system have the capacity to effectively integrate and serve persons with disabilities, regardless of the type or severity of the disability?
- To what extent are generic or disability specific self-employment programs effective in helping individuals with disabilities become employed?
- To what extent are self-employment programs effective in making programmatic and physical accommodations? Do appropriate accommodations increase use by individuals with disabilities?
- Which support services are most effective in increasing job retention for individuals with disabilities?

Youth with Disabilities

- What is the impact of in-school and out-of-school employment and training programs on youth with disabilities?
- What accommodations/adaptations are required to ensure their participation in workforce development activities?
- What can be done to improve the employment rate of young people with disabilities?
- What can be done to improve postsecondary education participation of young people with disabilities?

Incentives for Employers

- → What training and incentive opportunities might be available to encourage employers in high-technology growth industries to hire person with disabilities?
- → Which incentives are most successful in encouraging employers to hire individuals with disabilities?
- → What is the role of employers in employment training for workers with disabilities?
- → Is telecommuting an effective strategy for increasing the employment of individuals with disabilities? What supports and/or accommodations are required for an individual with disabilities to pursue this as an employment option?
- → What effect does Welfare-to-Work have on TANF recipients who have disabilities?

2. ASSISTING NATIVE AMERICANS

As a group, Native Americans have one of the highest rates of unemployment and poverty. Both culture and language present barriers to employment, as do the rural geographic locations of many reservation lands. Under Title IV of JTPA, DOL administers a national Indian and Native American Grant programs. Grant recipients provide job training, referrals, counseling, and a number of employment-related services to Native Americans. In addition, Title II-B of JTPA provides funds for summer programs for Native American youth.

WIA makes few changes to the employment and training services available to Native Americans. DOL will continue to provide competitive grants to fund employment and training activities that will help individuals obtain the skills necessary for employment and will lead to the social and economic development of communities. Under WIA, the Native American Employment and Training Council will continue to provide advice to the Secretary of Labor on employment and training services for Native Americans.

·· About half (50%) of those Native Americans who received services through the JTPA program in 1994 were placed in jobs. An additional 30% of recipients obtained a graduate equivalency diploma (GED), returned to full-time schooling, advanced to a higher level of training or education, or accomplished skill and training objectives (Levitan, Mangum, and Mangum, 1998).

·· Little is known about the long-term impacts of employment services provided to Native Americans.

POTENTIAL RESEARCH TOPICS / SUBJECT AREAS

Impacts of Training Services on the Earnings and Employment of Native Americans

- What are the long-term impacts of training services on the earnings and employment of Native Americans?
- What services are most effective in assisting Native Americans who are unemployed or underemployed to become employed?
- What has been the impact of employment and training programs on joblessness among Native American youth, on and off the reservation, especially Native American youth residing in large and mid-size urban communities?
- How can micro-enterprises and small business development strategies be used as part of larger efforts to bring more jobs to Native American communities?

Delivery of Employment and Training Services to Native Americans

- How and in what numbers have Native Americans been accessing mainstream employment and training programs?
- How will isolated Native American communities get access to One-Stop centers?
- Is maximum use being made of the 22 Tribal Colleges with respect to the education and training aspects of the Native American Employment and Training programs?
- In what ways can urban and reservation programs be coordinated to maximize services to participants who find themselves relocating either to or from urban and reservation areas?

Eligibility for Native American Programs

- How will census issues impact Native American employment and training, particularly with respect to eligibility determination using new racial classifications?
- How should Native American programs deal with eligibility issues concerning native peoples of Canada and South America?

3. ASSISTING THE HOMELESS

Lack of decent, affordable housing is a barrier to employment for some low-income individuals. The Job Training for the Homeless Demonstration Program (JTHDP), was launched in September 1988, with sites in thirty-two localities nationwide, to provide a wide array of support services to assist homeless individuals obtain employment. Other more recent initiatives have linked Title II-A services of JTPA with housing assistance programs financed by the U.S. Department of Housing and Urban Development.

The JTHDP program was largely successful in meeting its housing and employment goals for the homeless population. On average, during its seven years of operation, the program helped 36% of participants secure jobs, and half of those remained employed thirteen weeks after their initial placement. Homeless individuals referred to JTPA Title II-A programs had employment, wage, and job retention rates comparable to the larger JTPA enrollment population (Trutko et al., 1998).

POTENTIAL RESEARCH TOPICS / SUBJECT AREAS

- What has been done to implement the lessons learned from the homeless demonstration pilots?
- How can DOL programs be better coordinated with other homeless programs?

4. ASSISTING MIGRANT AND SEASONAL FARMWORKERS

The nature of migrant and seasonal farm work creates many obstacles that prevent these workers from improving their employment situation. Migrant and seasonal farm workers often lack adequate housing and health insurance. In addition, many migrant and seasonal farm workers have low education levels and poor English language skills.

Through Title IV of JTPA, DOL administers the Migrant and Seasonal Farm worker grant program. Grant recipients provide training and employment programs, including classroom and on-the-job training, counseling, and job development assistance, for migrant and seasonal farm workers. WIA continues the Migrant and Seasonal Farm worker Grant program while setting new eligibility criteria for individuals that receive services.

- Male and white migrant and seasonal farm workers are more likely to obtain employment and to have higher wages at program termination than workers who are female and of other racial groups (Strong and D'Amico, 1994).

.. Seasonal workers are more likely to obtain employment and to have higher wages at program termination than are migrant workers.

.. Participants between the ages of 22 and 44 are more likely to be employed at termination than are older workers (Strong and D'Amico, 1994).

.. Workers who received on-the-job training had higher employment and job retention rates, but lower average wages, than those who received other types of services (Strong and D'Amico, 1994).

POTENTIAL RESEARCH TOPICS / SUBJECT AREAS

- → To what extent do cultural factors influence the outcomes of employment and training interventions for migrant/seasonal farm workers?
- → What are the specific employment and training service needs of farm workers? How are these needs affected by the changing nature of farm work and the characteristics of farm laborers?

5. ASSISTING OLDER WORKERS

Older workers face unique barriers to employment. They must adapt to new technology in the workplace and often compete for employment with younger workers who, due to their recent education, are more likely to have learned the skills needed by employers. In addition, older workers often must overcome common stereotypes that lead employers to assume that they will not be able to learn new skills.

The demand for employment and training services for older workers is likely to increase. The American workforce is getting older and by 2005, the median age of the workforce will be 41 years. In that same year, there will be approximately 55 million workers age 45 and older, comprising 37% of the America workforce (Poulos and Nightingale, 1997).

While members of the baby boom generation have tended to earn more and have higher levels of educational attainment than earlier generations, approximately 11% to 14% of these individuals do not have a high school degree.

Little is known about the effectiveness of employment and training interventions designed to assist older workers. Additional research is needed to ensure that the employment and training system can adjust to the aging of the workforce.

POTENTIAL RESEARCH TOPICS / SUBJECT AREAS

Barriers to Employment for Older Workers

- To what extent does age discrimination impact the hiring of older workers?
- How can federal policies, such as the Social Security earnings limitation, be changed to eliminate disincentives to remaining in the workforce?

Impact of Employment and Training Programs for Older Workers

- What are the long-term impacts of employment services on the earnings and employment of older workers?
- What employment programs are most effective in serving the needs of older workers?

Effective Training Strategies for Older Workers

- Which kinds of information technology training models are most appropriate for older workers?

Employer Incentives to Hiring Older Workers

- Which kinds of policies/programs (e.g. retraining opportunities) are most effective in encouraging employers to hire older workers?
- Can benefits restructuring (e.g. offering long-term care insurance) help to attract older workers?

Delivery of Services to Older Workers

- In what ways should training programs be altered to reflect the needs of an aging workforce?
- What steps can be taken to ensure that older workers are adequately served by WIA programs for adults?

6. ASSISTING EX-OFFENDERS

Individuals exiting the penal system often have few job skills and little work experience to offer employers. Additionally, a criminal record compounds these other barriers to employment. Many believe that re-training programs for ex-offenders are critical for curtailing recidivism.

There has been little recent research evaluating the success of programs provided under JTPA for ex-prisoners. These programs include job search assistance, remedial education, skills training, on-the-job training, work experience, and customized training.

One federal program that has shown success in the employment of ex-offenders in the Federal Bonding Program. The program, sponsored by DOL, issues Fidelity Bonds to employers. A Fidelity Bond is a business insurance policy that protects the employer in case of any loss of money or property due to employee dishonesty. The bond is given to the employer free-of-charge, and serves as an incentive to the company to hire a job applicant who is an ex-offender or has some other risk factor in their personal background. The employer is then able to hire an ex-offender without taking any risk of worker dishonesty on the job.

Bond coverage is provided for any person whose background usually leads employers to question their honesty and deny them a job. The program will cover any person who is a risk due to their being in one or more of the following groups: ex-offender with a record of arrest, conviction or imprisonment; anyone who has ever been on parole or probation, or has any police record; an ex-addict who has been rehabilitated through treatment for alcohol or drug abuse; an individual with a poor credit record or who has declared bankruptcy; an individual who has been dishonorably discharged from the military; persons who are lacking a work history; or persons who are from families with low income.

.. Pre-college and college education programs have in some cases reduced post-release recidivism (Bushway and Reuter, 1998).

.. Vocational education programs have reduced some recidivism and/or led to positive employment outcomes, especially for older males (Bushway and Reuter, 1998).

.. An evaluation of JTPA programs for ex-offenders in Georgia found no difference in employment outcomes both at program termination and 14 weeks after termination when ex-offenders were compared with other JTPA participants (Finn and Willoughby, 1996).

POTENTIAL RESEARCH TOPICS / SUBJECT AREAS

Interventions During and After Incarceration

- How can training be offered to individuals during and after incarceration?
- What is the impact of eliminating training services to those who are incarcerated?
- What types of vocational programs are effective for ex-offenders when controlling for individual motivation?
- What types of training programs are effective for younger inmates?

Incentives for Employers to Hire Ex-Offenders

- How can wage subsidies be used to improve the transition to permanent employment for ex-offenders, without creating stigmas?

7. ASSISTING NON-NATIVE ENGLISH SPEAKERS

The United States is a nation of immigrants and is likely to remain so. The 1990 Census reported a dramatic increase in immigration from countries where Spanish or Asian and Pacific Island languages are spoken. The 1990 census reported a 53 percent growth in Hispanic populations and a 108 percent growth among Asian-minority people in America, and the growth of these populations has continued in the 1990's. California reports that in the future, minorities, most of whom come from immigrant families, will make up 50 to 70 percent of its population. For the 1989-90 school year, some 3 million of the children and adults in the nation's schools were classified as "limited English proficient" (Secretary's Commission on Achieving Necessary Skills, 1992b).

Little research has focused explicitly on employment and training interventions designed to assist non-native English speakers or those with limited English proficiency.

POTENTIAL RESEARCH TOPICS / SUBJECT AREAS

Employment and Training Interventions for Non-Native English Speakers

- To what extent do employment and training programs address the needs and outcomes of the limited English speaking population?

Skill Development Strategies for Non-Native English Speakers

- In what ways should skill development strategies be altered to meet the needs of non-native English speakers?

8. ASSISTING VETERANS

The veteran civil labor force totaled more than 15 million in 1998, or 12 percent of the total civilian labor force. Among all veterans, approximately 12 percent (or nearly 2 million) have registered annually in recent years seeking employment and training assistance. Providing this assistance to veterans is a federal responsibility, which is carried out primarily by the Department of Labor's Veterans Employment and Training Service (VETS). In addition, it is anticipated

that the adult and dislocated worker programs under the Workforce Investment Act (WIA) will also serve a significant number of veterans.

VETS has the responsibility to award and monitor employment and training grants, primarily grants to the States which fund the Disabled Veterans Outreach Program (DVOP) and Local Veterans' Employment Representatives (LVER). The DVOP specialists provide intensive employability and job development services to help veterans secure permanent employment, particularly veterans with service-connected disabilities. LVER staff provide case management, job development, program oversight, as well as supportive services directly to veterans. VETS also provides direct investigative and enforcement services to protect the employment rights and benefits of veterans, National Guard members, reservists, and other eligible persons.

Although the overall unemployment rate for veterans is lower than the overall rate for non-veterans (3.2 percent for veterans vs. 4.0 percent for non-veterans in 1998), certain subgroups of veterans have disproportionately high unemployment rates or other barriers to employment.

< According to the BLS, the unemployment rate for rate for younger veterans age 20-24 was 9.2 percent in 1998- over twice the national unemployment rate, and nearly three times the average for veterans overall-and the unemployment rate for veterans with special disabilities is also higher than the national average (5.7 percent in 1997).

< About half of all unemployed veterans are older workers aged 45-64, and many of these workers have been dislocated from their previous jobs (Bureau of Labor Statistics, 1998b).

< In addition, veterans make up a disproportionate share of the nation's homeless population. Approximately one-third of the nation's homeless adult male population are veterans. According to a report published by the Urban Institute, in February 2000, it was estimated that "between 300,000 and almost 500,000 veterans have experienced homelessness during the year of 1996 (U.S. House of Representatives Veterans Affairs Subcommittee, March 2000)." To address this need, VETS operates a competitive grant program serving homeless veterans, the Homeless Veterans Reintegration Projects.

POTENTIAL RESEARCH TOPICS / SUBJECT AREAS

Assisting Veterans in Making the Transition from Military Service to Civilian Employment

- What approach(es) for providing job search and career development assistance to younger veterans will help them successfully move into the civilian workforce?
- What types of licensing/certification should the military provide to its personnel to most effectively ready them to qualify for civilian employment?
- Based on the experience of veterans who have transitioned into the civilian workforce in the past 5 to 10 years, what type of assistance did they find most beneficial in facilitating their entrance into gainful civilian employment?

Assisting Homeless Veterans

- Based on the experience of the Homeless Veterans Reintegration Projects, what service components are most effective for assisting homeless veterans?

Assisting Older Veterans

- What are the risk factors that predispose veterans aged 46-64 to unemployment?
- What knowledge, skills, and abilities are needed for veterans aged 46-64 to maintain their marketability and employability?

SECTION V.

REVIEW OF ALTERNATIVE METHODOLOGIES FOR EMPLOYMENT AND TRAINING RESEARCH

SCOPE AND PURPOSE OF THE METHODOLOGICAL REVIEW

WIA requires that all DOL pilots and demonstrations have a formal evaluation component. The methodology review is a direct response to this requirement. Among its purposes, the review explores the various methodologies used to evaluate employment and training research, including pilots, demonstrations, and on-going programs. The review assesses the appropriate uses of the various evaluation methodologies for researchers and program managers, and may inform policymakers on the importance of evaluation and on the advantages and disadvantages of various evaluation methodologies. This section provides useful information on how to select appropriate methodology for evaluating DOL projects based on the project's specific characteristics and objectives, as well as its fund availability.

Many studies have discussed the exact definition of what comprises an evaluation (Bell, 2000; Orr, 1998). As categorized by Bell (2000), researchers employ four basic types of evaluation: formative, summative, operational, and outcome.

- Formative evaluations (also called pre-project analyses) use preexisting data to determine the ease of evaluation of a proposed intervention and to help planners refine the intervention before and during implementation.

- Summative evaluations describe the steps taken by local agencies to create and operate interventions. They summarize the character and activities of the intervention program.

- Operational evaluations, also known as process or implementation studies, assess the strengths and weaknesses of an intervention over the course of the program and consider ways in which the approach might be strengthened.

- Outcome evaluations assess the long-run effects of interventions on participants' outcomes. Outcome evaluations should lead to an estimate of the social and economic values of programs.

The first part of this review explores the uses of general labor market information for the direction and scope of interventions and research. This includes reviewing currently available labor market information, evaluating the usefulness of existing data related to the labor market, and suggesting areas where additional general labor market information can help form and evaluate DOL interventions.

The second part of the review examines the strengths and weakness of methods for studying employment and training interventions. This includes outlining the appropriate methodologies for evaluating DOL intervention programs. These methodologies encompass random assignment experiments, econometric measurements, and benefit/cost analysis. The values and methodologies involved

in quick-turnaround studies, identifying best practices, and studying program implementation and operational process are also explored.
Finally, the methodological review discusses how to ensure the policy relevance of research and evaluation projects. It addresses the principles for ensuring valid and generalizable analysis across states and programs and how to effectively disseminate research results to the appropriate users of this information. The section discusses outcome evaluations, experimental estimation methodology and other estimation techniques, and how to value the social and economic benefits and costs of interventions.

A. EXAMINATION OF ALTERNATIVE METHODS FOR UNDERSTANDING THE LABOR MARKET

A. 1. Introduction and Overview

One effective method for research is using nationally-provided datasets to supplement information on labor markets in employment and training programs. Integral components of program analysis include understanding how the economy is improved, how labor markets fall within the changing economy, how data measure these changing dynamics, and how to estimate the most appropriate ways for public policy to react to these changes. In this section, we explore the variety of national labor datasets available to researchers, and identify major gaps in statistical collection.

State and federal governments provide a wealth of information on labor statistics. The data are collected and aggregated in two ways. Individual and household data are collected as large cross-sectional information or in small longitudinal waves. Firm decisions on hiring and other employment information are generally reported at the macro-level. While much of the richness of this information is readily available as summary tables and raw data, there is little to link the individual worker to the firm and geographic labor market–although this has begun to change with the advent of several data projects–and even less to point directly at employment and training interventions.

The most important missing links between currently available data and employment and training research include the following:

- There has been a decrease in the sample size of many important datasets. For example, while there has been a stepped-up demand for local and statewide statistics, the Current Population Survey's number of household units declined in 1996 from 66,000 units and 792 geographic regions to 59,000 units and 754 regions.

- Researchers' needs do not seem to influence the collection of new data. For example, despite clear evidence of changing fringe benefits for workers (see Olson and Whittaker, 1999a) there is little in-depth collection of these and other nonpecuniary compensation in the data.

- Data are not collected in a manner that supports program interventions. Neither the Current Population Survey nor the decenniel Census ask about government employment and training programs. As a result, the opportunity to gather additional information on these programs is missed.

Other needs for more labor research data include more analysis of changes in the labor market structure, unionization behavior and rates of unionization, and better measurements of education and educational attainment. The shifting structure of employer provided training programs also is undocumented. Finally, despite the immense changes wrought by the influx of women into the labor market, governments provide little research data on child care arrangements, differences in work schedules, and other related changes in employment structure.

A. 2. Review of Usefulness of Existing Datasets Related to the Labor Market

Information on local labor markets can be quite helpful in designing and evaluating pilots, demonstrations, and programs. Placing local statistics in the context of national labor market data can provide useful context for the evaluation of programs, and much of the national data are readily available. Tables 1,2, and 3, labeled "Employment, Wage, Education, and Industry Data Sources," summarize the currently available national data on labor market information in the United States. These tables, while not exhaustive, represent the major datasets available for labor market analysis. The bulk of the datasets are sponsored by and provided by the Departments of Labor, Education, and Health and Human Services, and by the Bureau of the Census. Other datasets (e.g. the Panel Study of Income Dynamics) are funded by less typical agencies such as the National Science Foundation.

Scholarly analysis using microdata at both the individual and household level is increasing (Haltiwanger et al, 1998). The Current Population Survey, National Longitudinal Survey, and Panel Study of Income Dynamics are the most widely used datasets. Information from the Census of Manufactures has also experienced an increased pattern of use in scholarly articles.

In Tables 1-3, this information—taken in large part from Haltiwanger et al (1998, p. 11-23)—is displayed in three broad categories:

- individual and household cross-sectional data,

.. individual and household longitudinal data, and
.. establishment, industry and firm data.

Table 2.1. EMPLOYMENT, WAGE, EDUCATION AND INDUSTRY DATA SOURCES: Individual and Household Cross-Sectional Data

DATA SET Individual & Household Cross-Sectional Data	SOURCE	TIME PERIOD	DESCRIPTION: Specialty, Areas of Measurement
Census of Population	U.S. Bureau of Census	1800s - present collected every 10 years 1940 Micro-level data available	Immigrants, small areas, small demographic groups
Current Population Survey (CPS)	Collected by U.S. Bureau of Census for BLS	1940 - present	50,000 households; unemployment rates, labor force statistics, demographic information
Employment & wages covered by unemployment insurance (ES-202 program)	BLS and State employment agencies		Quarterly data collected from administrative records covering all employers subject to UI and Unemployment compensation for Federal Employers (UCFE) programs. Average annual employment and wages at: 4 digit SIC level; national, state, county level; monthly employment data; quarterly wage data
American Community Survey	Census	Proposed Demonstration 1996 - 98 Comparison Sites 1999 – 2001 National Comparison Sample 2000 – 2002 Full implementation 2003	Up to 3 million housing units. Data available for small areas such as neighborhoods on a 5 years compiled basis.
Occupational Pay Surveys	BLS	1800s - present	Selected occupations/topics, no pattern
New Worker Establishment Characteristics Database	Census	Highly restricted access: 1990 census information linked to establishment data	Demographic information on individuals from the 1990 Census long-form linked to detailed location and industry information for place of work

In Table 1, we clearly see the wealth of household cross-sectional information on individuals. An exciting development in this area is the proposed American Community Survey that should provide reliable estimates of basic demographic information for small geographic areas every five years. One clear weakness of current data collection is the lack of linkages between the ES-202 data (state-level unemployment insurance records) and other cross-sectional datasets such as the Current Population Survey and the Occupational Pay Surveys. The inability to take advantage of the ES-202 has meant that one of the richest and most reliable sources of information about individuals' employment and pay histories has been virtually unused in labor market analysis.

Table 2 demonstrates the variety and breadth of the various collected household longitudinal datasets. This category has the widest range of data collectors: the Department of Education, Bureau of Labor Statistics, Social Security Administration, Department of Health and Human Services, Bureau of the Census, National Science Foundation, and National Institute on Aging. Again, because these datasets are small in scope given their detail and longitudinal characteristics, there is limited geographic reliability. Also, the ability to link these datasets to such administrative records as income maintenance programs and ES-202 data is cumbersome and almost nonexistent.

Table 3 lists the major datasets that have information on establishments, firms, and industries. In Table 3, we see one of the most disturbing trends in data collection: termination of data collection. For example, the ending of data collection on contracts such as the Negotiated Wage and Benefits Changes is disturbing for a variety of reasons, especially the changing structure of fringe benefits that may be attributable to changes in union membership. (For example, see Olson and Whittaker, 1999b, for details.) The lack of continuity and regularity of data collection in special survey topics also presents problems in establishment and industry data collection. The issues of the current dynamics of the labor force are missed or only have irregular measurements. These include drugs and productivity in the workplace, contract employees, day care, and fringe benefits. Likewise, little information is regularly and reliably collected about small businesses and new firms. This issue also extends itself to the continuing factor of geographic reliability. Finally, there are few links between employers and the demographic information about employees.

Table 2.2: EMPLOYMENT, WAGE, EDUCATION AND INDUSTRY DATA SOURCES: Individual and Household Longitudinal Data

DATA SET Individual & Household Longitudinal Data	SOURCE	TIME PERIOD	DESCRIPTION: Specialty, Areas of Measurement
Health and Retirement Survey	National Institute of Aging; U of MI–Survey Research Center	1992	9500 households; persons born 1931-1941 and their spouses; 2 panels released 3rd panel in semi-public release.
High School and Beyond	Department of Education	1980	High school sophomores and seniors in 1980; with follow-up in 1982, 1984, 1986, 1992
Longitudinal Retirement History Survey (LRHS)	Social Security Admin.	1969-1977	Household Heads ages 58-63; various retirement issues
National Education Longitudinal Survey 1988	Department of Education	1988	8th grade students, follow-up 1990, 1992
National Longitudinal Study of the class of 1972	Department of Education	1972-1986	12th grade students 1971-72 cohort
National Longitudinal Survey of Labor Market Experience (NLS) & National Longitudinal Survey of Youth	BLS	Mid to late 1960s-some ongoing collection	Cohorts: older men 1966-90 (n=5020) ceased; mature women 1967-ongoing (n=5083); young men 1966-90 (n=5225) ceased; young women 1968-ongoing (n=5159); NLS Youth79 1979-continuing (n=12,686); NLSY Children 1986-ongoing (n=7035); NLS Youth97 Children ages 12 – 16, 1997-ongoing (n=10,000)
Panel Study Of Income Dynamics	NSF (National Science Foundation)/Univ. of Michigan Research Survey Center	1968-current updated 1990	2930 U.S. households; 1872 low-income households; children of respondents become part of survey; in economic well being; employment -related information; detailed neighborhood information. 1990 supplement of Latino households
Survey of Income and Program Participation (SIPP)	HHS; and Bureau of Census; currently just Census		Every 4 months for 4 years; labor force status throughout the whole month;
Survey of Program Dynamics	Bureau of Census	1992-2002	1992-93 panels of SIPP interviewed every year until 2002

Table 2.3: EMPLOYMENT, WAGE, EDUCATION AND INDUSTRY DATA SOURCES: Establishment, Firm, and Industry Data

DATA SET Establishment, Firm and Industry Data	SOURCE	TIME PERIOD	DESCRIPTION: Specialty, Areas of Measurement
Annual survey of Manufacturers	Bureau of Census	Panel established for 5 years for years ending in 4 or 9.	
Census of Manufacturers	Bureau of Census	Ongoing every 5 years	
Compensation Surveys: Employment Cost Index (ECI)		1976, 1980, quarterly	To measure change in wages costs; wages and salaries; total employee compensation; 4200 establishments in private sector; 1000 state and local
County Business Patterns	Bureau of Census and IRS administrative records		Number of establishments, employment in first quarter, annual employment numbers for states and counties by 2 digit SIC (in some cases more than 2 digits).
Current Employment Statistics (CES or 790) Survey	BLS and State employment agencies		Production and non-sup (supervised) workers; overtime information for manufacturing industries; 390,000 reporting units, U.S. states, 275 metro areas; Extensive industry level detail; important for current conditions
Employment Benefits Survey (EBS)	BLS	1980	Data on incidence and characteristics of employee benefits for medium and large private establishments; includes state, local, and small private; 4400 private; 1300 government
Employment Opportunities Pilot Project (EOPP)	BLS		
Hours at Work	BLS	1981	5500 establishments; quarterly and annual ratios of hours at work to hours paid
Negotiated Wage and Benefits Changes	BLS	terminated in 1996	Wages and benefit changes agreed to in collective bargaining; largest settlements (1000+ workers); changes in compensation for only settlements affecting 5000+ workers and 1000+workers in construction

Continued on next page.

Table 2.3 (continued): EMPLOYMENT, WAGE, EDUCATION, AND INDUSTRY DATA SOURCES: Establishment, Firm, and Industry Data

DATA SET Establishment, Firm and Industry Data	SOURCE	TIME PERIOD	DESCRIPTION: Specialty, Areas of Measurement
National Compensation Survey	BLS	Begins in early 2000s?	Combines several BLS compensation programs (occupational wage surveys, employee benefits survey, and employment cost index) into a single source of local, regional, and national statistics on levels, trends, and characteristics of pay and benefits. Area based survey. 154 metropolitan and non-metropolitan areas; 36,000 establishments, occupational breakdowns.
Occupational Compensation Survey Program (OCSP) Predecessor Surveys: 1. White Collar Pay Survey; 2. Professional, Administrative Tech, Clerical survey, 3. Wage surveys, 4. Industrial wage surveys,	BLS		46 selected occupations by work level 18,000 establishments; 160 localities
Occupational Employment Statistics (OES)	ETA and 15 state employment security agencies	1971 1996-1997	725,000 established on 3 year cycle; occupational employment estimates by industry used for educational planning Expand survey and collected wage estimates
Special Surveys Pilot surveys: day care, Drug testing, contracting Work out, job vacancies	BLS		

Table 2.4: ADDITIONAL AND ENHANCED DATA NEEDS

Data Need	Dataset for Suggested Expansion	Suggested Agency	Suggested Frequency
Youth Labor Supply	ACS CPS	Census BLS	State reliability: annual National reliability: monthly
Mature Adult Retirement	Health & Retirement Survey CPS	NIA BLS	National reliability: annually
Self-employed workers	CPS	BLS	State reliability: annual National reliability: monthly
Small Firm workers	CPS	BLS	State reliability: annual National reliability: monthly rather than March only
Low-income formal labor market and informal sector activities	CPS	BLS	State reliability: annual National reliability: monthly
Small and New Business employment behaviors	CES	BLS/State	State reliability: annual Small Regional Reliability 2-years
Contingent worker/ contracting out use	CPS New Employer Survey	BLS BLS?	State reliability: annual Small Regional Reliability 2-years
Training and workplace practices	New Employer Survey	BLS?	National reliability: annually
Changing structure of employment contract	New Employer Survey	BLS?	National reliability: annually
State-level statistical significance	American Community Survey/CPS	Census/ BLS	Annually
Matching of administrative records	For all major datasets	DOL-state & Census	
Internationalization of US economy	Additional questions in CPS and CES	BLS	Annually
Household longitudinal data on the labor market experience	Extension of CPS & ACS	BLS Census	
Linking establishment data with household information	New Worker Establishment Characteristics Data Base	Census	Lift access restrictions
Employer-Employee linked databases		BLS-Census	Annually, mirroring the CPS information
Central distribution center of datasets and summary statistics.		BLS-Census Effort	

A. 3. Suggested Areas Where Additional or Enhanced Datasets Are Needed

The listings of nationally based data presented in the previous section begin to describe areas where more information on the labor market is needed. These areas are wide ranging, falling into four basic categories: information about specific demographic groups, information about industry and establishment labor decisions, geographic information, and data linkages. Table 4 summarizes and lists these concerns. The last columns in Table 4 provide potential current dataset expansions to facilitate the incorporation of the suggested additions.

While there is much information about the general population and the general labor market, certain categories of the population are often hidden or underrepresented in data collection and analyses. One example is how analysis of the labor markets for youth and retirees both involve special considerations not typically implemented in labor market studies. For example, the family structure and educational attainment of the youth must be considered. In general, the labor supply behavior of youth and the retirement decisions of mature adults are still poorly measured and understood.

Likewise, there exist some inherent biases in current data collection at the individual level. Except for special supplements (e.g. the March Income Supplement to the CPS) and the decennial census, there is little information about the labor market situation of small firm workers and the self-employed. There is also limited information about contingent workers, including contract workers. Finally, the lack of knowledge about the activities of low-income individuals in both formal labor markets and informal labor markets continues to be a serious flaw in the available datasets.

Information About Industry and Establishments: Changes in Structure and Labor Decisions

Although there is substantial coverage of the activities of larger business, there is still a lack of consistent information about small and new businesses, particularly the smallest businesses called "microenterprises." There is a particular lack of understanding of labor demand and formation of one of largest employers of workers: the small business. Also, there is a deep need for exploring and tracking the contracting-out of labor and contingent work uses as the employer-employee relationship continues to change.

Additionally, there is substantial need for improved measurement of non-wage compensation; not solely vacation, sick leave, health insurance, and pensions, but also flexible work schedules, employee stock purchases, and other forms of self-governance. Employers' training and workplace practices have long been omitted from any consistent on-going data collection. The impact of changing probabilities of long and short-term jobs also should be explored.

Geographic information

There is a growing need for the ability to use microdata more effectively at the small area level (town, city, SMSA county, state, etc.). As federal programs devolve to the states, the need for this ability has become more urgent. Additionally, the ability to match current household and individual data to administrative record data more easily would enhance the understanding of localized labor markets.

Data linkages

In order to estimate better the impact of growing internationalization on the labor market there is a clear need for the ability to link individual survey data to establishment data. Also, household longitudinal data on the dynamics of the labor market experience should be incorporated with greater information on the firms in which the individuals work for better understanding of the dynamics of the labor market experience and how actors react to negative and positive macroeconomic shocks.

Another important need is the linking of establishment surveys that incorporate demographic data to household surveys. This matching of employer data with worker data can only enrich our understanding of the labor market. Improving the content of existing surveys, especially in the uniformity of state and local administrative records, will smooth this process. The New Worker Establishment Characteristics Database, sponsored by the Bureau of the Census, is an excellent beginning along this path.

Finally, the lack of a central clearinghouse for data and information must be addressed. The two largest providers of data, DOL and the Department of Commerce, could create an enormous opportunity for better data analysis through a joint project where basic data tables were available online at one central web site, similar to their current joint CPS pages. They then could establish one interdepartmental data distribution center, something along the lines of the Governmental Printing Office.

B. THE STRENGTHS AND WEAKNESSES OF ALTERNATIVE METHODS FOR STUDYING EMPLOYMENT AND TRAINING INTERVENTIONS

Understanding the effects of employment and training interventions through appropriate evaluation is now mandated by WIA. The strengths and weaknesses of the various methods for conducting employment and training evaluations are debated intensely by scholars and practitioners alike. Recent trends toward emphasizing experimental methods, quick-turnaround studies, and best practice assessments may cause the overlooking of other measurement options that may be more appropriate given the situation, time constraints, or fiscal constraints. Likewise, an emphasis on reducing the costs of evaluation may lead to the use of unreliable methods and inadequate sample sizes.

One approach to determining the appropriate evaluation methodology for a particular study, proposed by Bell (2000), holds that the type of evaluation be determined by the general research question to be answered. These research questions may include:

- identifying the goals of the study and how the outcomes should be measured;
- identifying the potential weaknesses in the intervention;
- providing feedback for the program improvement;
- clearly defining the intervention and the process of delivery;
- providing progress reports that include the numbers served, the dollars spent, and the types of activities in the intervention;
- gauging achievement relative to the goals of the intervention and to its obstacles;
- identifying improvements and identify how to replicate the program successfully.

Bell (2000) classifies these evaluations, summarizing them into four categories: outcome, formative (pre-project analysis), summative, and operational. He then takes this system and explores how these categories link to particular research questions. This system of classification is delineated in Table 5 on the next pages.

Table 2.5: WHAT RESEARCH GOALS IMPLY ABOUT EVALUATION TYPES, BY TOPIC AREA (From Bell, 2000)

AREA/Research Goal	Formative	Summative	Operational	Outcome
WAYS TO STRENGTHEN THE PILOT INTERVENTION				
1. Refining/improve intervention design	yes			
2. Smooth initial implementation	yes			
3. Guide mid-course correction			yes	
FEASIBILITY OF APPROACH				
4. Check ability to create intervention			yes	
5. Decide whether intervention is interacting with participants as planned			yes	
6. Identify problem spots, resolution			yes	
MANAGEMENT ACCOUNTABILITY				
7. Make pilot a better setting for evaluation	yes			
8. Describe use of demonstration funds		yes		
9. Document how treatment was produced		yes		
10. Distinguish pilot from similar policies		yes		
11. Provide information for later normative evaluations		yes		
12. Determine if actual intervention matched plan			yes	
13. Gauge achievements vs. goals regarding outcome levels, changes, and impacts				yes
14. Determine how much taxpayers paid per dollar of social benefit				yes
15. Reject interventions that are bad investments of taxpayers' money				yes
AFTERMATH OF INTERVENTION				
16. Describe what happens to participants after exit				Yes
17. Examine outcome trends over time				Yes
18. Quantify improvement in outcomes over time				Yes

(Continues on next page)

AREA/Research Goal	Formative	Summative	Operational	Outcome
EFFECTIVENESS OF INTERVENTION				
19. Ascertain strengths and weaknesses of treatment			yes	
20. Note goals that may be unattainable give operational limitations			yes	
EFFECTIVENESS OF INTERVENTION				
21. Develop hypotheses on intervention's effects on participants			yes	
22. Estimate impacts on participants outcomes				yes
23. Test hypotheses regarding demonstration impacts				yes
MAJOR BENEFICIARIES				
24. Develop hypotheses about who will benefit most			yes	
25. Note subgroups with best outcomes				yes
26. Note subgroups with the largest outcome gains overtime				yes
27. Test hypotheses about who benefits most (have largest impacts)				yes
FUTURE APPLICATIONS				
28. Know exact nature of treatment		yes		
29. Craft intervention "blueprint" for future		yes		
30. Consider potential for replicating successful intervention			yes	
31. Identify ways to improve intervention			yes	
32. Decide if intervention has enough social benefits to offset full social costs and, thus warrant extension				yes
33. Provide factual basis for advocating/opposing pilot as national policy based on full social costs				yes

Table 2.6: COMPARING RESEARCH DESIGNS FOR OUTCOME ASSESSMENT OF EMPLOYMENT AND TRAINING INTERVENTIONS AND PROGRAMS (In Order of Selection Bias)

RESEARCH DESIGN	SELECTION BIAS	APPLICABLE TO:	STUDY PERIOD
Randomized Experiments	None: Researcher Controlled Random Assignment	Partial Coverage Programs, New Programs	Long
Quasi-experiments with non-random controls	Some: Uncontrolled Selection; non-random assignment, constructed multi-stage probability control group	Partial Coverage Programs, New Programs, Full coverage programs	Long-Medium
Panel Studies	Full Selection Bias: Uncontrolled selection. Controls for participant productivity differences.	Partial and full coverage programs	Medium
Time Series	Full Selection Bias: Uncontrolled selection, some controlling through variation in participant outcomes over time.	Partial and full coverage programs	Long-Medium
Cross-sectional Surveys	Full Selection Bias: Some controlling through provider variation in outcomes.	Partial and full coverage programs	Short
Before and After Studies	Full Selection Bias: Uncontrolled selection.	Partial and full coverage programs	Short
Judgmental Assessments	Full Selection Bias: Shadow controls	Partial and full coverage programs	Short
Quick Turn Around Studies	Full Selection Bias	Assessment of potential of pilot and partial programs	Short
Best Practices	Full Selection Bias	Comparison of efficacy ratings among similar programs. Benchmarking.	Short
Program Implementation	Selection bias	Understanding how a program functions	Short

The next items of this section address issues associated with evaluations: when to use experimental estimation methodology; the reasons for employing other estimation techniques; and how to value the social and economic benefits and costs of the intervention. Then, other approaches to evaluating employment and training interventions, including formative, summative, and operational evaluations are addressed

The discussion is summarized in Table 6, entitled "Comparing Research Designs for Outcome Assessment of Employment and Training Interventions and Programs." This table compares different research designs and their trade-offs of time, cost, and selection bias. The first column labels the research method; the last four columns summarize the potential risks for selection bias, the appropriate program for its application, and the time and monetary cost level. Full coverage programs are programs like Unemployment Insurance where all the eligible population may participate in the program. Partial coverage programs are programs where only a portion of the eligible population may participate, on account of monetary or other constraints. Job Corps is an example of a partial coverage program.

This table highlights the distinctions among the various experimental and econometric estimation methodologies. In programs where random experiments are feasible, the researcher controls the comparison group and uses random assignment to avoid selection bias. This methodology works best in new programs and pilots and in partial coverage programs (programs where only part of the eligible population may participate and others may be denied access). In on going full-coverage programs (programs where the total eligible population may participate, i.e. entitlement programs) other quasi-experimental and econometric estimation (non-experimental estimation) procedures are typically used. These estimation procedures will be described later in this section. Other assessment procedures, including best practices, quick-turnaround studies, and program implementation are covered in the last part of this section.

B. 1. Defining Outcome Measurement

Generally, outcome evaluations gauge achievements, estimate social benefit-cost analysis, and/or describe outcomes of participants and trends over time. Two broad approaches are used for evaluating the success or failure of social interventions: experimental and econometric measurement. Experimental studies involve the carefully constructed social experiment where control groups are randomly selected to ensure that there is no selection bias. Econometric studies, the more commonly used methodology, involve employing socioeconomic controls to determine the effectiveness of program interventions.

In both approaches, impact estimates and general outcome evaluations:

- measure the status of the participant after exiting the program (i.e., completed program, employment status, wage level);
- identify the subgroups that fare significantly differently from the overall group (typical groups include sex, race, educational status, and/ or training providers);
- measure the trend in participants' labor market outcomes (i.e., full-time year-round, part-time part-year, unemployed, cyclical unemployment, government subsidies);
- quantify improvements in outcomes between two specific points in time (pre-entry and post-exit);
- identify the participants who improve the most and understand who will be the real beneficiaries in the intervention;
- estimate the intervention's impact on participants' outcomes through experimental controls or econometric methods;

*Note: Taken from Bell, 2000. p. 51.

- measure either gross outcome levels or estimate net impacts.

B. 2. Experimental Methodologies Useful for the Evaluation of Programs, Pilots, and Demonstration Projects

The following table categorizes the scope and range of the various assessment techniques employed in estimating the outcomes of program participants.

TABLE 2.7: TYPOLOGY FOR DETERMINING APPROPRIATE RESEARCH DESIGN

Evaluation Type	Research Design	Reasoning
Pilot	Exploratory/quick assessment	Testing the general likelihood that the approach will be successful
Model	Experimental	Testing the validity of a particular approach as a means toward the achievement of some desired change
Prototype	Quasi-experimental	Tests the ability to institute a workable program based on that approach. Identifies feasibility.

Source: Bell 2000. p. 51.

Until the early 1980s, evaluations of training and employment programs generally used data from ongoing programs rather than from controlled experiments. However, in the late 1960s one of the first large-scale social experiments, the Graduated Work Incentives Experiments (commonly known as the New Jersey Income Maintenance Experiment) was created. Approximately 1,300 low-income families in five cities were randomly assigned to treatment or control status (Orr, 1998). The measurement of the effects of the New Jersey experimental program on earnings, employment patterns, and educational attainment aided in the creation of governmental cash transfers, such as the earned income tax credit, among other programs.

Since then, the trend in employment and training program assessment has gradually shifted toward random assignment experiments, which is often required to achieve outcome analyses for pilots, demonstrations, and other programs that are not universal or up to scale. However, experiments may not be feasible when the program is universal or up to scale, particularly for a full coverage program, when costs outweigh the added benefit of experimental assessment.

Benefits and Implications of Experimental Data

The major goal of an experiment is to see if an intervention works and for whom it is most beneficial or detrimental. Random assignment experiments are generally viewed as superior to other forms of evaluation in research generated articles (See Burtless, 1995. Heckman and Smith, 1995, and Orr, 1998 criticize this assertion). This assertion relies upon several key features of experimental data. First, if the social experiment is properly defined and executed, it can provide a unique and valuable analysis. Secondly, the interpretive simplicity of experimental results are key to policymakers and researchers understanding the relative effectiveness of the intervention. Thirdly, by randomly assigning groups to control and participant, researchers gain knowledge, free of selection bias, of the participants' outcomes with or without a given intervention.

Nonexperimental research is generally viewed as less reliable because volunteers' assignments are not made at random. Thus, selection bias is thought to preclude credible inference on the treatment effects from the observation of outcomes when treatments are uncontrolled. In fact, Ashenfelter and Card (1985) and LaLonde (1986) concluded that small differences in the methods for modeling the post program results absent selection bias led to substantial and significant differences in the estimated impact of the intervention. As a result, nonexperimental evaluations have a high potential for specification errors (Friedlander and Robins, 1995, continue these analyses, determining some direction of modeling biases).

However, the theoretical superiority of random assignment methods does not always translate to real-world, workable applications. Lack of funds and practical difficulties in implementing experiments, including ethical considerations, help to explain why experiments are not always used.

The benefit of using experimental data to define the validity of outcomes is substantial. Social experiments must be used in any feasible evaluation where substantial differences exist between those who choose the program and those who do not. Otherwise, the selection bias of the group will make interpretations on the efficacy of the program nearly impossible. For example, recently unemployed persons may choose to enter or be directed into a retraining program based upon hard to measure qualities like optimism and innate productivity. Thus, those persons who decline to enter a retraining program may be substantially different in outlook, productivity, and experience from the participants.

The success of an intervention is often measured by comparing actual outcomes of participants to those they would have hypothetically had without the intervention. Traditionally, researchers implemented this by selecting a comparison group at the beginning of the intervention rather than by subjecting participants to two different regimes. While random sampling of those who were eligible for the intervention is preferred, the political and practical difficulties of denying individuals access to a program may override research considerations.

Appropriate Use of Random Assignment Experiments

After determining that outcome measurements are appropriate, researchers' next step is to determine whether a random assignment experiment is feasible. The key considerations are:

- Time frame: If the time until implementation is short or if the program is to become full coverage immediately, then the program cannot be measured through experimental methods.

- Cost: Random assignment experiments can be costly, and the program may not include a feasible budget for experimental outcome assessments.

- Scope: The new program may already be ongoing and full coverage; thus, random assignment experiments are not feasible to evaluate the introduction of the new full coverage program on a program scale.

- Ethical: The program may be so generous or parsimonious that a random assignment experiment may be ethically infeasible. An experiment may deny the control group needed services that would have been typically offered to

them potentially causing undue hardship. However, in partial coverage programs, random assignment may be viewed as a fair way to allocate limited program slots.

.. Measuring variables: Policy variations are independent variables, and these affect the dependent variables (outcomes). The policy variation, not other factors, must be assumed to be the independent variable cause of the change.

.. Selection: If selection bias is an overriding consideration, then the use of random assignment is crucial.

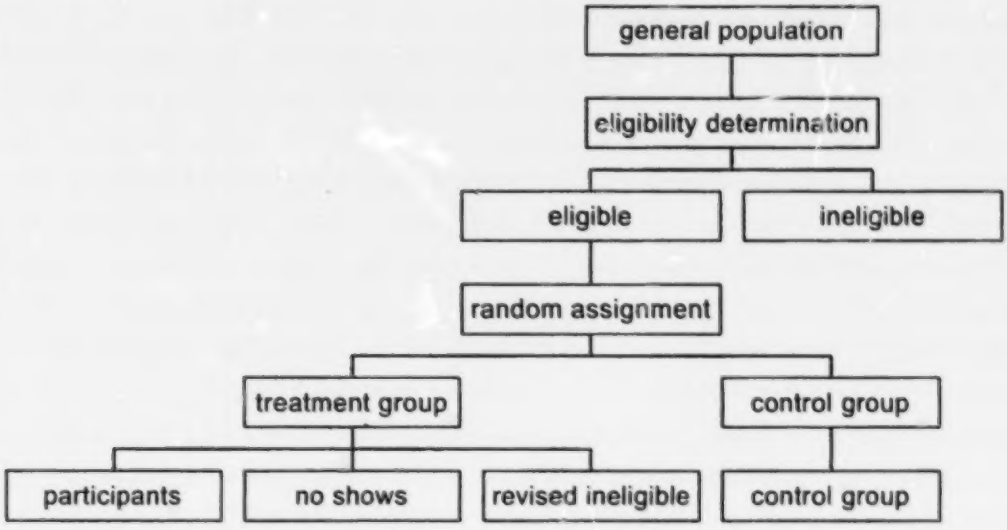
.. Comparisons: The purpose of experimental design is to determine the efficacy of the approach among other nonpolicy causes. Establishing the kinds of relationships suggested by the experimental design accomplishes this.

The first step in experimental methodology is to select two equivalent groups at random: one control and one experimental. Figure 1 maps the selection process (see Orr, 1998, for a more detailed discussion of the selection process). First comes the process of determining which portion of the population is eligible for the program intervention. Then those who have been determined eligible are randomly assigned to either the treatment or the control group. In the treatment group there are typically three types of individuals: participants, no-shows, and revised ineligibles. (Revised ineligibles are individuals who were mistakenly labeled as eligible for the program earlier in the selection process and found to be ineligible after being selected into the treatment group.)

The control group will also have these types of individuals, although the revised ineligibles are typically not found if they are in the control group.
The frequency and occurrence of no-shows and revised ineligibles in the control and treatment groups will introduce some amount of selection bias back into the measurement of difference in outcomes. Estimates can be adjusted for the presence of these cases.

The control group may also contain individuals that ultimately receive the experimental service or receive a service that they would not have received otherwise. Program staff must fully assist in preventing or minimizing this crossover and in identifying those control group members who do receive these services. In the end, these control group members must be taken into account.

FIGURE 2.1: EXPERIMENTAL DESIGN



Once the control and experimental groups have been selected, measurements of current status should be taken. This is depicted in the column labeled 'before' in Table 8. Then the experimental group is exposed to the program and the control to a placebo program. Measurements of outcomes of the two groups are done, depicted here in the 'after' column. The change in status is depicted in the last column. Taking the difference of the changes allows for the evaluation of the intervention.

Table 2.8: MEASURING DIFFERENCES IN OUTCOMES

Group	**Before**	**After**	**Change**
Experimental	X_1	X_2	$D=X_2-X_1$
Control	X_1	X_2	$D=X_2-X_1$

These differences sometimes include controls for the differences in characteristics that a random-assignment experiment may have between the demographic characteristics of the two groups. Generally, the random assignment experiment is considered to have controlled adequately for selection bias (see Orr, 1998, for caveats concerning the no-shows and revised ineligibles). However, experimental and quasi-experimental versions of social programs can be unreliable predictors of program success, for reasons in four categories: program administration, feedback effects, site selection, and program participation.

The program administration category poses special problems, since reliance on experimental methodologies can obscure these problems of using random assignment for researchers. While random assignment should be blind to the researcher, program provider, and participants, this is logistically impossible in most interventions. Because program staff and researchers administer the program in various results, they affect its design in subtle ways. Bell (2000) describes how program providers must know who is in each group and thus there is a possibility that this information will influence outcomes.

Researchers designing random experiments must be aware of feedback effects. Large programs *should* change the labor force environment that influences outcomes; smaller experimental programs will not measure the effects of a full-scale program that changes the labor market equilibrium or the overall expectations of employers. Heckman and Smith (1995) note that many believe experiments are based on more plausible assumptions than their nonexperimental econometric counterparts. However, Heckman and Smith assert that experiments may not reflect important variables, including subsidies, advertising, local labor markets, family income, race, and the effect of time and length in completing program. Thus, experimental analyses can be misleading if they ignore the larger economic situation of an individual's system or the subtleties of individual labor market experience.

The selection of an experiment's site often is not random. Instead, political, population, and location realities may require specific, nonrandom assignments in the location of providers. This in turn may bias the results since experimental evaluations rely upon complete random assignment among the population being studied.

Finally, researchers should note that the experimental existence of a program they study will have different participants than an actual program. The changes in the number and nature of participants could alter outcomes.

Quasi-Experimental Methods

Despite the generally positive reaction to experimental program evaluation, the experimental methods may not be feasible for a host of reasons including:

- The general purpose of the study (e.g if it is not an outcome study, if selection bias is not a concern, or if the study is mandated to be a quick-turnaround feasibility study).

- A long-term evaluation is needed in a small amount of time.

- There may not be any "extra" people to serve as controls, or there are no service providers willing to implement the experiment.

- There may be ethical and political problems (or even legal constraints) with denying services to a group or individual due to equity considerations. Program operators may refuse to implement an experimental design as a result. This is particularly true for full coverage programs, especially entitlements.

- Professionals will object to the random assignment of individuals and would rather select those who will, in their opinion, benefit most from the program or will work best in the program.

- Randomly assigned participants may and probably will drop out of the groups, and this is beyond the researcher's control; it may make the sample unrepresentative of the potential client base.

- The "Hawthorne effect" may bias results (that is, because a skill or training method is emphasized, people may believe it to be important and then act as if it is beneficial).

As a result, other measures of outcomes may be used to approximate the treatment effects. The concept of *quasi*-experimental methods is a direct offshoot of this need. Quasi-experimental design takes into account the lack of control over the scheduling of the experimental stimuli and/or the ability to randomize. Typically, the researcher will attempt to construct a comparison group using data from a population that was not originally selected to participate in the program. Thus, the research will introduce a quasi-experimental design into the data collection. This quasi-experimental control group is selected based on the distribution of characteristics exhibited by the treatment group. Then, various econometric proxies are used to control for differences in populations in order to get an estimate of differences in outcomes. This "matching pair" estimation procedure, when properly implemented, may have the potential to produce impact estimates and inferences about the intervention that are very close to those produced from a randomized social experiment (see Heckman, Ichimura, and Todd, 1998, for details).

Quasi-experimental estimations attempt to mimic the random assignment of true-random assignment experimental estimations through the formation of a control group with characteristics similar to that of the treatment group. These nonequivalent control group designs allow for quasi-experimental and control group before-and-after measurements, but the control group and the quasi-experimental group do not have pre-experimental sampling equivalence. Rather, the groups represent naturally assembled groups where selection bias has been limited by controlling for measurable demographic changes.

An example of a quasi-experimental setup is a study by Hollenbeck, Kimmel, and Eberts (1997). The researchers in this study found it infeasible to use an experimental design to evaluate the efficacy of the Ohio JOBS Student Retention Program. Instead, Hollenbeck et al. constructed a comparison group of college students taken from welfare administrative data (the CRIS-E data system—a record of all interactions with public recipients), against whom they compared the JSRP participants. This comparison group was used to answer the question of how outcomes for the participants differed from the outcomes that would have occurred had JSRP not existed. This assumes that the groups are identical except for participation in the program. In reality, these two groups may be different, and selection bias may be present in the analysis, since the unmeasured differences most likely exist. (In other words, students receiving welfare benefits are different from welfare recipients who receive benefits tied to entering schooling.)

The value of this methodology is that it tends to require less resources and time, but its value is limited since only measurable characteristics can be used in the construction of the comparison group. Unmeasured characteristics like work attitudes, risk-taking ability, and inherent productivity will continue to cause uncertainty in the comparability of the groups.

As mentioned earlier, this is not considered the best-case estimation procedure, given documented model-specification sensitivity, but it may *become* the best available approach given budget, data, and other constraints. A variety of econometric techniques are then used to estimate the effects of interventions that exploit what information is available. These techniques include taking advantage of the richness of panel and time series data as well as the more traditional analysis of cross-sectional information. These methods will be described in detail in the next section, along with estimates of the trade-offs of using these techniques.

B. 3. Nonexperimental Methodologies Useful for the Evaluation of Programs, Pilots, and Demonstration Projects

Efficiency and Confidence in Econometric Measurement of Outcomes

This section assesses the value of other econometric techniques such as before and after studies, panel and time series evaluations, and cross-sectional surveys, in reliably evaluating an intervention's impact. These techniques are not exclusive of experimental and quasi-experimental methods, but rather can stand alone or be incorporated into experimental analysis.

While some of these econometric methods do control for some selection bias differences, there are substantial reliability costs associated with using these techniques. Robert Moffitt (1991) surveys more complex econometric estimation procedures that are not addressed in this essay. See Moffitt (1991) for more details on these estimation procedures. These procedures are precisely delineated in his

survey and the exact conditions under which estimates of the program impact are valid are defined. These procedures include:

- identifying independent variables that affect the probability that an individual receives the treatment but has no direct relationship to the outcome;

- using longitudinal data in before-and-after studies;

- imposing parametric distribution assumptions upon the outcome.

The following sections explain the basic research methods and econometric analysis that are typically used in outcome evaluations. These include:

- panel studies and time series;

- cross-sectional surveys;

- before-and-after studies;

- judgmental assessments.

Each section will briefly describe each research method, contrasting it to the pure experimental evaluation method. Included in this discussion will be a general example of data that would fit this methodology and the reasons for the fit.

Panel Studies and Time Series

The econometric use of panel studies and time series exploits the variations of participants' outcomes over time and the differences in service providers. Time series experiments take into account the presence of a periodic measurement process on some group or individual. This is done by exploring changes in dependent variables over time in panel studies. Time series data use the econometric exploitation of variation in the timing of program implementation at different sites or in the variation of programs at different sites.

For example, in a time series dataset a researcher may have information about participants for several months before the intervention, during the intervention, and for several months after the intervention. Thus, the researcher could exploit the estimated growth and decline in participants' earnings before the intervention by comparing and contrasting it with the earnings pattern after the intervention. However, without adequate control groups the program intervention analysis only tells us how participants fared and not how the population of potential participants would fare.

Incorporation of quasi-experimental methods would include creating a comparison group of individuals with similar earnings patterns to the pre-intervention participants and then comparing the differences in earnings patterns of the two groups once the participants had completed the intervention.

Natural Experiments

Changes in policies and programs and differences in policies between states can be used to create a natural experiment (Meyer, 1995). Theses differences are used to create natural treatment and comparison groups. For example, the employment outcomes of unemployed individuals who participate in a newly instituted employment program (treatment group) can be compared to individuals who were unemployed before the program was created (control group) and thus did not receive the service. After controlling for other factors, the differences in employment outcomes of the two groups are assumed to have been caused by the new program. The studies by Card and Krueger of the effect of increases in the minimum wage on employment levels utilized a similar methodology. Selection issues, however, remains a significant problem for natural experiments.

Cross-sectional Surveys

Sometimes researchers may only have information on participants at one point in time. As a result, the impact analysis will be marred by full- selection bias. For example, in employment and training programs a researcher may only have some basic demographic information and post-training wages and employment status. Simple statements of predicted current wages and employment status for different demographic groups who complete the intervention are all that is possible. This will result in full-selection bias problems (since no comparison group exists) and also no real comparison to what the individuals would have otherwise experienced.

However, if several groups of participants have cross-sectional information, then researchers can compare one group, controlling for differences in demographics, with previous intervention groups. Administrative data or national datasets may be used to construct a comparison group or a comparison wage in order to approach a quasi-experimental analysis.

Before and After Studies

Before and after studies have information on participants before and after the intervention occurs. Thus, estimates of this data are able to determine if there is a change in relation to the objectives. For example, before and after studies may document that the program is having an impact on participants (or not) and that the impact is consistent (or not) with project goals. This cannot be considered definitive proof of an intervention's positive impact, because a

comparable group may have done as well or better without the intervention. Clearly, this assessment methodology must be supplemented with data from other programs, local labor markets, and general knowledge. Here the role of expert judges is critical. For example, those familiar with the field of the intervention type can remark upon whether an outcome is greater than or less than the typical success rate of an intervention of that type.

Judgmental Assessments

In some cases the opinions of participants and services providers may be of interest in evaluating a program. These judgmental assessments are typically implemented through surveys where participants rate the efficacy of the intervention and also rate the satisfaction level with the intervention. This helps supplement other assessments but the judgmental assessments alone do not produce reliable information since participants are not always aware of what different outcomes might have been expected. An obvious exception to this occurs in situations where the purpose of the project was to change participants' attitudes.

By incorporating the judgmental evaluations with other labor market information and various other assessments by administrators and using experts to examine the project through record review, observation, and interviews with participants and providers, accurate statements on the general efficacy of the program may be achieved.

Cost Benefit Analysis

Cost-benefit analysis has an extensive literature and methodology that has been described in detail by various sources (including Orr, 1998; Bell, 2000; Boardman et al., 1996). This section describes the basic definition and concept of cost-benefit analysis and how cost-benefit analysis is an integral tool in the evaluation and measurement of employment and training interventions. It will begin by defining costs and benefits. Then, this paper will link how the experimental methods and econometric estimations described earlier in this paper are used as tools for measuring cost and benefits. Finally this section will end with a discussion of the caveats involved with the concept of valuing costs and benefits which cannot be measured in monetary terms.

Earlier sections dealt with the difficult task of how to properly measure the effects of an intervention. In cost-benefit analysis, this measurement becomes more involved as all dimensions of the assessments of an intervention are added.

Cost-benefit analysis is an important and necessary tool in the determination of whether an intervention merits reproduction or continuation. Careful application of estimating the program's impacts (both positive and negative)

must be weighed with the cost of administering the program. In cost-benefit analysis, the evaluation of the merit of employment and training interventions requires three basic assessments.

i. The value of the resources used to produce the program's effects (costs)
ii. The value of the impact of these effects on participants and society (benefits)
iii. The way in which these costs and benefits are distributed across the population of participants and society (distribution)

After the selection and bias issues discussed earlier in this section have been addressed, the benefits of the program are the estimate dollar valuations of the outcomes created by the intervention. These valuations are typically measured through experimental design, econometric analysis, or other procedures listed earlier in this paper. For example, in training programs, one measure of the value of the program is the difference in wage received by the participant from the wages that she would have otherwise earned. It is important to recognize that this difference is typically not the difference between the intervention and no intervention. Rather, it most often is the difference between a new intervention and the already in-place programs and interventions (often called the "current service environment").

Generally the costs of a program are defined by the expenditures on it. However, there may be cost shifting where part of the cost of the intervention is shifted to other programs that supplement the intervention, but are not funded by ETA. Costs may also include the opportunity costs of participation for individuals. For example, in training programs there may be calculations of participants' loss of income from engaging in training rather than working for wages.

Finally, cost-benefit analysis of employment and training programs should typically include an in-depth analysis of the distribution of the costs and benefits across the (1) participant population and (2) the general public. This is in order to assess the burden and benefit of an intervention and whether policymakers and the public find it an appropriate distribution.

Clearly, not all costs and benefits of an intervention can be translated into dollar amounts. For example, some interventions purposely are proposed to impart non-monetary ideals such as attitudes toward work and schooling or improved citizenship through job participation. While methods to measure whether these goals have been achieved exist, the value added to society is difficult to measure. Since these benefits cannot be measure easily through dollar valuation, the public and policymakers must decide whether the value of these results merit the expenditures on the interventions. These values are voiced through elections, public dialogue, and referendums.

B. 4. Implementation of Quick-Turnaround Studies, Best Practices Assessments, and Program Implementation Process Analysis

Research Methods for Quick-Turnaround Studies

As implied earlier in this analysis of appropriate methods for outcome measures, there are situations when time is scarce and the research question to be answered is rather straightforward. For example: does a proposed intervention have any potential to be effective, or can the proposed design be implemented? Thus, if the time frame is very short it may only be possible to engage in quick-turnaround studies and evaluations such as field studies or focus groups of employers and participants.

At certain points in the formation of policy it may be in the interest of society to engage in quick-turnaround studies to estimate the feasibility of a proposed intervention rather than a full-scale experimental estimation of the impacts of the intervention. Orr (1998) suggests that incorporating a pilot program analysis with information from earlier studies and reanalyzing existing evaluation data may give a researcher an adequate first-order evaluation of the potential feasibility and outcomes of a proposed intervention.

Research Methods for Identifying Best Practices

Experimental and other econometric assessments may not be available because of insufficient data or time limitations. The term "best practices" refers to the process for determining the best implementation methods for an intervention by observing how successful programs have implemented of the intervention. The appropriate use for best practices is when a researcher wishes to understand the process of implementing a program and compares its success by benchmarking it against other projects.

An example of best practice analysis is the PEPNet Self Assessment from the National Youth Employment Coalition. In the PEPNet Self Assessment, providers defined the depth and breadth of their efforts (purpose and activities, organization and management, youth development workforce development, and evidence for success) and evaluated their success, comparing it to other programs.

Research Methods for Studying Program Implementation and Operational Processes

Sometimes the outcome evaluation is based upon research questions such as how the service provider staff implement an intervention or whether the program apparatus will allow an intervention to be implemented. Here, the research centers on documenting the implementation and details of the intervention. The focus is on the process by which the intervention produces outcomes that may or may not be accurate. Thus, program implementation studies are appropriate when the researcher is trying to determine what the barriers are to achieving the intervention's goal.

Often, implementation and process analysis–also included in data from tracking systems–will include ethnographic methods of interviewing participants, employers, and providers. In many ways, program implementation studies are similar to quick-turnaround studies although the time frame is longer and the implementation question becomes the primary point of contention.

Frequently, the projected outcomes of an intervention rely upon assumptions about the targeted populations and the processes by which the intervention will produce outcomes that may or may not be accurate. Employing appropriate preexisting knowledge from other data sources–for example, understanding the distribution of educational attainment for the targeted population by racial or and ethnic groups—will help verify whether the assumptions are valid.

C. ENSURING THE POLICY RELEVANCE OF RESEARCH AND EVALUATION PROJECTS

The previous sections explored the relationships among data, evaluations, and methodologies. This exploration also analyzed how to conduct the best possible evaluation given fiscal, time, and social constraints. This last section addresses two important issues: ensuring the relevance of the evaluation and disseminating research findings in a manner that will encourage their use by program operators.

C. 1. Validity and Ability to Generalize Results Across Labor Markets and States

The major issues of this section include how to ensure that the results are not specific to one state or geographic labor market and how to ensure that the results may be repeated in other program interventions. As mentioned previously, one of the potential problems with employing experimental assessments is that a success may not replicate outside a particular labor market. One way to address this concern is to add enough experimental sites to attain robust estimates for success in other locales. There are also other problems with estimating the ability to generalize the outcomes of one pilot or program to other similar programs, to other States or localities, or to the nation as a whole. These problems include different outcomes based upon the economic situation/business cycle, service providers, and others.

Efficacy of Experimental Models for Predicting Interstate Success

Since labor markets and other environmental conditions are not homogeneous across municipalities and states, a one-site experimental evaluation's recommendations and analysis may not be universal in its applicability. In order to ensure proper predictions for success, a multi-site experiment may be required.

However, there are enormous cost increases at the observation level when an experimental evaluation moves from a one-site design to a multi-site design. The decision to extend the number of sites for an evaluation must take into consideration what knowledge will be gained from extending the experiment. According to Greenberg, Meyer, and Wiseman (1994), three potential research questions are addressed by multisite experiments.

- Will the intervention work given certain variables, such as the characteristics of the population being served, in economic and other environmental conditions, and program components and inputs?

- Does the impact estimate need to be based on a sample that takes into account potential program effects over broad areas such as a state or the nation as a whole?

- How do program effects vary with cross-site differences in participant characteristics, environmental conditions, and program features?

It is also useful to consider multisite projects and evaluations that are not experimental in nature. Bell (p. 47) asserts that one can gain insight into a demonstration by considering where one site stands in relation to another in terms of program implementation and operational processes. He also points out that this does not mean the better outcome of one site should be an indication that the site is a better provider. The labor market and other environmental conditions must be considered in the evaluation. Specifically, the research must separate what is caused by the intervention and the site's management and implementation, and what is an interaction between the intervention and the site's economy or other unique characteristics.

C. 2. Effective Dissemination of Results

An effective analysis of the program intervention must include the dissemination of the results. These results must reach all the segments of the employment and training community:

- Research community
- Practitioner community
- Politicians
- Government

Effective dissemination of the results of evaluations requires that all the different communities that work to bring employment and training interventions to fruition know:

- how a program is successful;
- for whom it is successful;
- how to implement the program;
- how to monitor the program; and
- how to continue to improve the intervention.

Dissemination of employment and training reports are conducted by DOL/ETA offices. Within ETA, dissemination of these reports are conducted by the Unemployment Insurance Service (UIS) and the Office of Policy and Research (OPR).

The Division of Research and Reporting in the Office of Workforce Security disseminates the results of completed RD&E studies of Unemployment Insurance, Wagner-Peyser labor-exchange services, and One-Stop career centers.

Current efforts include the following:

Briefings – OWS conducts briefings with ETA and, in some cases, for external audiences of all completed studies.

The OWS (previously UI) Occasional Paper Series – RD&E conducted by the Division of Research and Reporting in OWS is published on an ongoing basis. Copies can be obtained by e-mail request to IOPapers@doleta.gov. A chronological listing of these papers is included in the back of each newly published one.

Reports, Executive Summaries, Lists Available on the Internet: An on-line listing and brief summaries of OWS Occasional Paper Series are available on the Internet at www.ttrc.doleta.gov/ETA/owsdrr/index.html. Full-text documents and executive summaries are available through links from this page for downloading.

On-Line Order Form: An on-line order form is currently under development.

The OWS Research Database - OWS in August 1999 published a research bibliography that expanded and updated (into 1999 citations) a bibliography last published in 1986. The updating added 400 new citations and added over 500 abstracts. At the same time the bibliography was published, we created a searchable data base that is available on the ETA Intranet and is in the process of being posted to the Internet.

The UI (soon to be OWS) Research Exchange – OWS in September 1999 published the most recent version of a collection of manuscripts on UI research topics. Submission guidelines are printed in the latest version of the Exchange. They can also be obtained by e-mail request to UIExchange@doleta.gov.

ETA understands the need to improve and strengthen its dissemination of research and evaluation reports. OPR, based on both on-going efforts to improve the dissemination process and a review of the utilization of ETA reports with state and local practitioners, has recognized the following factors as being very important in the process:

- Timeliness of reports to the employment and training community
- Targeting reports to audiences within the employment and training community
- Accessibility of reports to the public
- Relevancy of reports to the targeted audience

Technological advances, e.g. the Internet, can improve the timeliness, targeting, and accessibility of ETA reports to the employment and training community. The requirement of abstracts and a plain-English style of writing can improve the relevancy of reports to their targeted audience. On-going research on improving the dissemination process is providing useful information on the most effective and efficient methods of dissemination for employment and training reports that are sponsored by the ETA.

Current efforts include the following:

On-Line Order Form –The Dissemination/Communications Unit of the Office of Policy Research lists its Research and Evaluation Monograph alphabetically in an electronic on-line order form from which orders can be placed, free of charge to the public. The web site address is:
http://wdr.doleta.gov/opr/reports.asp

Abstracts Available on the Internet – Abstracts of all of the available publications are listed on the Internet by categories for easier reference, e.g., General Economic/Workforce Issues, Specific Worker Groups (dislocated workers, economically disadvantaged, homeless, learning disabled, migrant and seasonal farmworkers, workers with literacy needs, and youth), and Coordination of Services.
The web site address is: **http://wdr.doleta.gov/opr/reports.asp**

Abstracts Required on All Reports – For every new report, OPR is requiring a one-page abstract that highlights its content and focus to provide a quick overview of the study.

Reports and Executive Summaries Available on the Internet – Full-text documents and executive summaries of more recent reports are available on-line with downloadable WordPerfect and PDF formats. OPR is in the process of using the Internet to post all ETA research and evaluation reports. The web site address is: **http:// wdr/doleta.gov/research**

PDF Format Required – New ETA reports that will be published are being required to submit a PDF file format to expedite the publishing of the report on the Internet. These newer publications are being placed immediately on the Internet to close the lag time between publication of a final report and its accessibility to the public.

Publications Phone Line – While the Internet has made it convenient for people to access reports, it is also important to ensure that ETA employment and training reports continue to be accessible to the general public who do not have access to the Internet. Hard copies are available to individuals who do not have access to the Internet, or who prefer hard copies of ETA reports. An order for a report can be placed on the publications' phone line of OPR, which is 202-693-3666 (please note that this is not a toll-free number). Written requests can be made to The Office of Policy and Research/The Division of Policy, Legislation, and Dissemination, U.S. Department of Labor, 200 Constitution Avenue, N.W., N-5637, Washington, D.C. 20210.

TEIN Published – Training and Employment Information Notices (TEIN) will continue to be a part of OPR's dissemination process. The TEIN is circulated to all state and local practitioners in the employment and training community. The TEIN will include information on the newly published report and how to locate the report on the Internet, submit a written request for a report by mail, or place an order by phone.

POTENTIAL RESEARCH TOPICS / SUBJECT AREAS

Usefulness of Administrative Data and Unemployment Insurance Wage Records for Program Evaluation

- How can administrative data systems from employment and training programs be improved to allow for the effective evaluation of interventions?
- How can Unemployment Insurance wage record systems be improved to allow for the effective and efficient tracking of the employment and earnings of individuals that receive services?

Incorporation of Employment and Training Components in the American Community Survey

- How can the American Community Survey be strengthened so that it can be a useful data source on the needs of job seekers?

Dissemination of Research Results

- How can research findings and lessons be most effectively disseminated to practitioners?
- What are the key audiences for various types of research? Can the research needs of different audiences be combined in a cost-effective way?

SECTION VI.

HIGH PRIORITY TOPICS/SUBJECT AREAS FOR PILOTS, DEMONSTRATIONS, RESEARCH, AND EVALUATIONS

The Research Plan identifies nine high priority research topics that will help DOL and ETA better understand the labor market. The analysis focused particularly on the effectiveness and efficiency of programs and services designed to assist individuals who lack employment and employers who need to hire employees. These high priority research topics were identified by the Expert Panel based on input from stakeholders and analysis and research summarized in the Research Plan.

The Expert Panel selected the high priority research topics according to their potential to:

- Provide usable information that is not currently available;
- Assist DOL in the implementation of WIA and/or other authorized programs of ETA;
- Improve existing DOL and ETA programs or provide guidance for designing new interventions to assist jobseekers and employers.

In addition, five general recommendations were also identified by the Expert Panel during the development of the Research Plan.

HIGH PRIORITY RESEARCH PROJECTS

1. UNDERSTANDING THE ROLE OF INTERMEDIARIES IN THE LABOR MARKET

Organizations outside of the public employment and training system play a significant role in bringing together individuals who lack employment and employers who need to hire employees. These intermediaries can take many forms and range from non-profit community-based organizations to for-profit temporary service companies.

Research funded by the Department of Health and Human Services has focused on the role of intermediaries in Welfare-to-Work programs. The Research Plan finds that the role all of these organizations play in the labor market must be understood more thoroughly to allow for the development and refinement of government interventions to assist individuals become employed. In addition, the public employment and training service should be able to adapt effective practices from these intermediaries in order to strengthen existing programs and/or services or identify new ones.

The Research Plan identifies a number of key issues that DOL should pursue in future research, including:

- What role do intermediaries, including but not limited to temporary agencies and community-based organizations, play in the labor market?
- What is the role of intermediaries in supplying employment and training services?
- Do intermediary agencies, including but not limited to community-based organizations or temporary agencies, offer new approaches and techniques that can be adapted by the public-sector employment and training community?
- What are the implications of the labor market role of intermediaries for public employment and training programs?

2. IDENTIFYING EFFECTIVE TRAINING STRATEGIES

The Research Plan finds that DOL must identify the training strategies that are most effective at giving individuals the skills they need to become employed. These strategies must take into account the way in which adults, including those with limited formal education and work experience, learn new skills. They also must take into account the historic changes taking place in the labor market, as technology and computer skills become a threshold requirement for most well-paying jobs.

New Technology

Training strategies and service delivery should reflect the rise of new technologies. The Internet makes distance learning possible and a number of internet-based virtual universities have already been established. The role of the Internet in promoting and providing job-related education and training is certain to skyrocket in the years ahead.

Linking Training to the Needs of Employers

According to past research, training is most effective when it is closely linked to the needs of employers. The Research Plan finds that sectoral training strategies—which bring employers with similar skill needs together with training providers—have shown potential in assisting individuals to obtain the skills they need to become employed. However, the Plan recommends additional research to fully understand the potential of these and other strategies that strive to link the needs of employers with training curricula.

Training for Employed Individuals

Today's economy requires that employers and workers adapt to constant change. To meet these demands, all individuals must continuously work to upgrade their skills. Corporations, nonprofits, and training institutions need to apply new emphasis to assisting employed individuals upgrade their skills, through on-site or off-site training.

The Plan recommends that DOL address these critical research questions surrounding training for workers and the unemployed:

- What is the most effective way to teach workforce readiness skills to adults, including those that have limited formal education and work experience?
- In what ways can new technologies improve skills training?
- How can training curricula incorporate the skills most needed by employers? Are sectoral training strategies effective at increasing the long-term employment and earnings of individuals?
- How can training services be designed to assist employed individuals to obtain new skills?

3. DEVELOPING APPROPRIATE ASSESSMENT TOOLS

Providers of employment and training services use assessment tools to help develop a service strategy for participants. Employers use assessment tools to identify the skill levels and proficiencies of potential employees and to identify the training needs of current employees.

The Research Plan finds that the assessment tools used by employers must be identified and understood to better inform the use of these tools by providers of employment and training services. In addition, the Research Plan finds that existing assessment tools used by providers of employment and training services should be reviewed to identify those tools that are most effective at assessing the skill levels of individuals.

A number of questions remain unanswered, including:

- What types of assessment tools are used by employers to determine the skill levels and proficiencies of potential employees?
- Which tools are most effective at assessing the skill levels of youth and the hardest to serve population?
- How can assessment tools be used at One-Stop Career Centers to ensure that individuals receive the most appropriate services?

4. EVALUATING AND IMPROVING JOB RETENTION PROGRAMS AND SERVICES

Both WIA and the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996 promote rapid entry into employment. Under WIA, only individuals who are unable to obtain employment through core or intensive services may be eligible for job training. With the passage of PRWORA, time-limited benefits and significant work requirements replaced cash benefit entitlements. As a result of these policy changes, individuals with few skills or work experience are being placed into entry-level jobs. Despite the strong economy and the substantial decline in welfare rolls, the extent to which low-skill workers and former welfare recipients are able to retain jobs and advance in them remains to be seen.

Past evaluations of employment and training programs have demonstrated that many individuals, including disadvantaged adults, dislocated workers, and youth, who successfully obtain employment often face additional barriers to remaining employed. In the past, employment and training services focused primarily on assisting unemployed individuals to find jobs. Increasingly, however, employment and training interventions are emphasizing strategies that will assist individuals to remain employed. Yet, research on the effectiveness of existing retention strategies is limited and needs to be expanded.

The Research Plan identifies a number of areas for expanding research into new and improved strategies for retention:

- → Which post-employment services are most effective in helping individuals, including youth, dislocated workers, disabled individuals and disadvantaged adults, to remain employed?
- → How can the Work Opportunity Tax Credit and the Welfare to Work Tax Credit be used in conjunction with other services to assist individuals to remain employed?
- → What are the impacts of financial incentives, such as reemployment bonuses, wage supplements, and retention bonuses, on job retention?

5. DEVELOPING STRATEGIES TO PROMOTE CAREER ADVANCEMENT

Many disadvantaged and low-skill individuals working in entry-level jobs find it hard to acquire the skills they need to obtain promotions and wage increases. Increasingly, private and nonprofit employers are developing strategies to assist these individuals acquire the skills they need to move ahead. While some strategies provide a range of skill training to employed workers, others create

career ladders inside companies targeted to the skills that allow and encourage workers to advance in their careers within an organization.

While obtaining new skills and absorbing organizational lessons and culture are always critical to individual job mobility, the changing nature of today's economy requires a commitment to lifelong learning and career advancement from every worker, and to every worker. The career strategies that were once important to the ambitious and upwardly mobile need to be built into training services for the workforce at large.

A number of important areas need further research:

- → Which post-employment services are most effective in assisting individuals to advance in their careers?
- → How can sectoral training strategies be used to create career ladders for welfare recipients and other disadvantaged individuals?
- → How can transitional employment be used in conjunction with other services to assist welfare recipients to obtain higher wages and permanent employment?

6. IDENTIFYING EFFECTIVE SUPPORT SERVICES

Some individuals need additional support services to overcome barriers to employment. These services include childcare, transportation, and housing assistance. While the size and scope of the federal government's role in providing a safety net to low-income Americans is still a matter of policy debate, public programs and services should be as effective and useful as possible in moving individuals into the labor market. Working mothers, whether single or married, often have difficulty finding accessible, affordable and quality care for their children. In addition, transportation can be a barrier to finding and retaining employment for individuals who do not own a car or have access to public transportation. The Research Plan finds that significant research is needed on the provision of effective support services in a "work first" system:

- → What is the impact of the availability of and access to childcare services on the employment decisions of individuals with young children?
- → Which methods of allocating childcare subsidies (tax credits, vouchers, cash assistance, and contracts between public entities and third-party vendors) improve access to childcare?
- → What transportation strategies are most effective in assisting individuals who lack reliable and affordable transportation to find and retain employment?

7. UNDERSTANDING THE IMPACT OF SELF-DIRECTED EMPLOYMENT SERVICES

WIA emphasizes self-directed job search and career management. Through the One-Stop system, which includes local One-Stop Centers, satellite centers and various electronic linkages, all individuals have access to core services such as labor market information and job listings. Because access to staff-assisted, intensive services (e.g., group and individual counseling) is limited to harder-to-employ jobseekers, the role of "self-serve" resources has become more important. These core services are increasingly offered through Internet-based or computer-based systems (e.g. America's Job Bank, America's Talent Bank, and the O*NET system). Even those individuals eligible for Individual Training Accounts (ITAs) will select a training provider from a list of eligible providers that will be displayed through a self-guided consumer report card system.

This new emphasis on self-directed Internet and interactive information tools raises important implications for both job seekers and employers. Yet, little is known about how such innovations will impact labor exchanges. A host of critical questions remain, according to the Research Plan:

- How can new technologies increase access to employment and training services for jobseekers and employers?
- What are the demographic characteristics of individuals and employers that use America's Job Bank?
- To what extent do individuals obtain employment as a result of using America's Job Bank and America's Talent Bank?
- Do America's Job Bank and America's Talent Bank complement or substitute for local labor exchange services? If they serve as substitutes, are they more effective at assisting individuals to obtain employment than services delivered exclusively at the local level?

8. IMPROVING INTERVENTIONS TO ASSIST THE HARDEST TO SERVE, INCLUDING WELFARE RECIPIENTS AND THE HOMELESS

The number of individuals who are receiving welfare benefits and other employment and training services has decreased in the past five years due to a healthy economy and new policies. Those individuals who continue to be in need of services often face multiple barriers to employment. These individuals often lack the education and skills demanded in the job market and have limited work experience and familiarity with the soft skills needed for successful job performance. In addition, many of these individuals need support services, including child care, transportation aid, substance abuse treatment, and transitional housing. Finally, some of these individuals have other barriers to

employment including mental illness, domestic violence, substance abuse, physical disability, and homelessness.

The Plan identifies a number of directions for further research in designing these strategies. They include:

- To what extent does the workforce investment system have the capacity to provide services appropriate for the hardest to serve?
- What are the most effective strategies for combating such barriers to employment as mental illness, domestic violence, substance abuse, physical disability, and homelessness?

9. DEVELOPING THE POTENTIAL OF TELECOMMUTING

New technologies including the personal computer, the fax machine, and the Internet, have made it possible for some employees to perform their jobs at home or off-site. While less than 10% of American workers telecommute at least occasionally, it has become an attractive option to many employees who are looking for new ways to balance work and family.

Although telecommuting is most available as a work option for workers in higher income brackets, it may be an effective strategy to assist lower-income individuals to obtain and retain employment. Some policymakers and scholars have suggested telecommuting as a possible strategy for assisting residents of communities with limited job opportunities to have access to jobs located outside their neighborhoods. In addition, telecommuting may also allow some disabled individuals the flexibility they need to become and remain employed. Despite the promise of telecommuting and new technologies for reducing sprawl, addressing work and family issues, and helping employers and workers find each other, many questions remain. The important areas for DOL research include:

- Does telecommuting have the potential to assist disabled individuals to obtain and retain employment?
- Can telecommunication centers connect low-income urban job seekers who lack local employment opportunities to suburban jobs?
- To what extent can telecommuting address the location barriers of rural job seekers?
- Does telecommuting improve worker productivity?
- Does telecommuting enhance workers' abilities to balance work and family?

10. GENERAL RECOMMENDATIONS

During the development of the Research Plan, five general recommendations for DOL/ETA research were identified.

a. Dissemination of Research Findings

In order to fully assist DOL in the implementation of WIA and other programs of ETA, research findings must be effectively disseminated to practitioners at all levels of the workforce development system. DOL should build on existing efforts to ensure that timely and usable research findings are made available to a wide audience.

b. Research Collaboration between DOL/ETA and Other Federal Departments

DOL currently collaborates with other federal departments on research in the areas of employment and training. These efforts should be expanded to allow for the efficient use of resources.

Collaborative research efforts should be pursued with the U.S. Department of Health and Human Services, the Department of Education, the National Science Foundation, the U.S. Department of Housing and Urban Development, and the U.S. Department of Transportation on issues of mutual concern. For example, DOL should work closely with the Department of Health and Human Services on research efforts related to interventions to assist the hardest to serve, including welfare recipients and the homeless with multiple barriers to employment.

c. Creation of a Clearinghouse for Labor Market Data

DOL should work with other relevant departments to create a central clearinghouse for datasets on labor markets and employment and training interventions. This clearinghouse should be accessible through the Internet.

d. Ph.D. Dissertation Program for Employment and Training Research

DOL/ETA Office of Policy and Research should fund Ph.D. dissertations in the field of employment and training. Past funding of this program increased the amount of research being conducted in the field and helped to build a group of scholars with career-long commitments to the field.

e. Increased emphasis on comparative international research, particularly on programs in other industrialized nations most comparable to the U.S.

Many industrialized countries around the world face many of the same employment and training challenges as the United States. As a result, comparative international research can be helpful to DOL in the identification of new strategies for employment and training intervention.

APPENDIXES

APPENDIX A.
MEMBERS OF THE EXPERT PANEL

Beth Buehlmann	U.S. Chamber of Commerce
Evelyn Ganzglass	National Governors' Association
Gary Gortenburg	National Association of Counties
Virginia Hamilton	California Workforce Association
Rich Hobbie	Interstate Conference of Employment Security Agencies
Lisa Lynch	Tufts University
Larry Mishel	Economic Policy Institute
William Rodgers	College of William and Mary
Jim Van Erden	Goodwill Industries
John Wallace	Manpower Demonstration Research Corporation
Stephen Woodbury	Michigan State University

APPENDIX B:

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